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ABSTRACT

Guidelines for increasing academic efficiency at the Kansas state colleges and universities cover the regents' institutions, programs and costs, and evaluation and coordination. Following introductory material, Chapter II describes the current Regent's structure for coordination and briefly characterizes the instructional mission of each institution. Chapter III presents an overall picture concerning instructional costs in Regents' institutions and some of the considerations involved in deciding when it is sound public policy TO OFFER SIMILAR PROGRAMS IN ONE OR MORE INSTITUTIONS. Chapter IV lists steps taken to achieve coordination and gives examples of cooperative programs now in operation within the Regent's system. Chapter V offers specific recommendations to the Regents for discontinuance of some programs, placing others on provisional status subject to intensive subsequent review, and making other policy changes to facilitate academic planning. (MJM)

ED 088322

GUIDELINES

FOR INCREASING ACADEMIC EFFICIENCY AT THE STATE COLLEGES AND UNIVERSITIES

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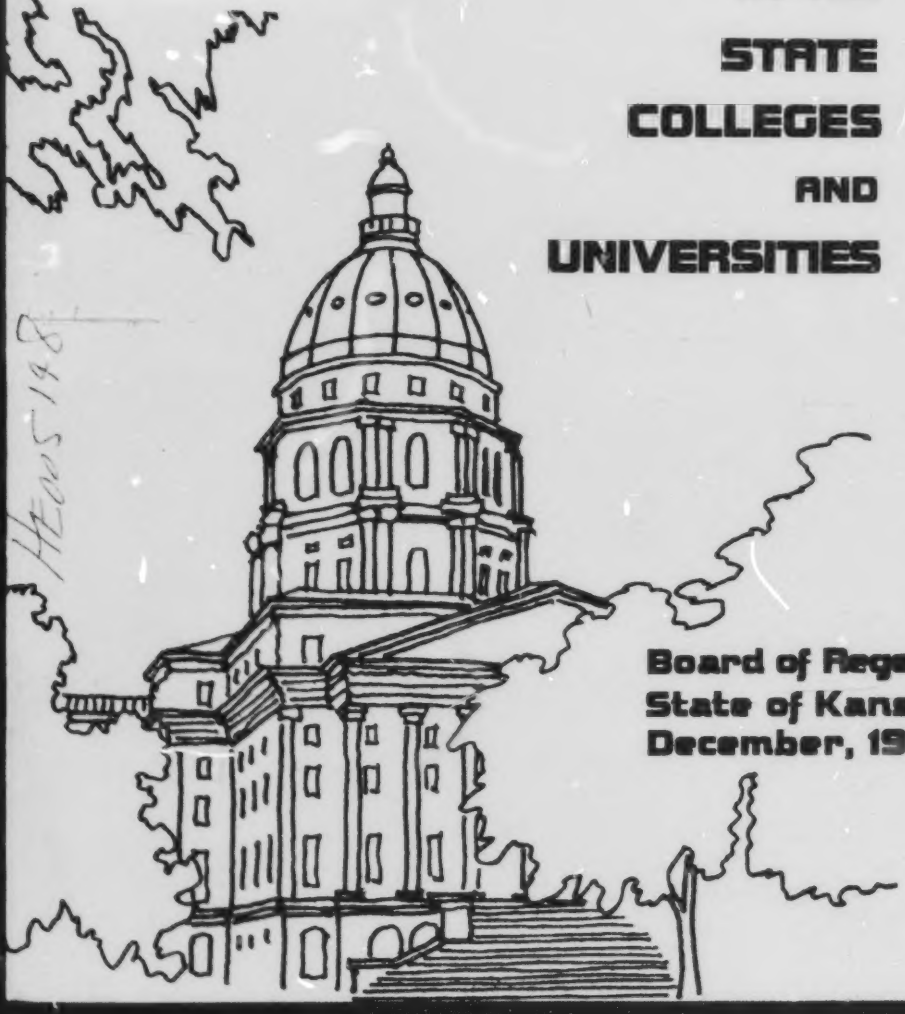

Board of Regents
State of Kansas
December, 1972

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GUIDELINES FOR INCREASING ACADEMIC EFFICIENCY AT THE STATE COLLEGES AND UNIVERSITIES

As Approved by the

BOARD OF REGENTS
STATE OF KANSAS

December 1972

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Chapter 1
INTRODUCTION

Since the end of World War II, higher education has undergone dramatic changes. Enrollments have rapidly increased and many new programs have been added—partly because research has produced new knowledge and partly because a changing society has demanded graduates trained to meet new needs. The necessary corresponding increase in funds for higher education has become a matter of social and, therefore, governmental concern. Under these circumstances the matching of available resources against society's expectations of, and demand for, public education of the highest quality requires the exercise of maximum efficiency, thoughtful planning and rational setting of priorities.

No college or university can do all the things its students, faculty, alumni, and patrons would like to have it do. Each institution has to establish priorities. Moreover, in state systems, the priorities for each unit must reflect overall, system-wide priorities in keeping with the fiscal and social realities of the state. Obviously today, when social changes seem to come more rapidly than in the past and when a number of impending changes appear to relate directly to the educational system, it is essential to be ready to forge new plans to reflect changing conditions.

The Kansas Approach

Faced with the need to husband resources carefully and allocate them wisely, the Kansas State Board of Regents has chosen to develop close coordination and cooperation among the six units for which it is responsible through a "do-it-yourself" approach. Believing it unwise to pour resources into a large central coordinating staff in Topeka, the Board has relied on a small professional staff working with committees of representatives from each of the six institutions to analyze needs and problems and make recommendations.

This approach to system-wide coordination was formalized in 1969 when, with the approval of the Regents, the Presidents of the six Kansas state colleges and universities established the Council of Chief Academic Officers (COCAO), bringing into close association the six officers (one from each campus) most directly responsible for administering the academic program at each college and university. The Presidents asked this group to review the programs of the six institutions, giving special attention to the nature and extent of duplication in the offerings of the colleges and universities, and to prepare specific recommendations for the development of a more efficient and effective Regents' system in Kansas. No special funds were appropriated in support of this analysis; a rigorous self-study was conducted as part of the regular on-going operations of the institutions.

Basic Assumptions

Certain basic assumptions underlying this approach to the problem were gradually clarified through discussions within COCAO and with the Presidents,

Regents and various faculty members. Among the more important are the following:

1. Kansans aspire to a distinctive quality of life within their state and have long viewed education as one necessary means of attaining their basic goals. They want quality education at reasonable cost.
2. Kansas has a "mix" of natural resources, people, geographical location, institutions and traditions which give promise of substantial advancement in the quality of life if these assets can be used with an appropriate combination of prudence and imagination. The assumption that, because the state's population has not increased materially in the last 30 years, Kansans should resign themselves to stagnation and mediocrity is specifically rejected.
3. Lasting improvements in the operating efficiency and effectiveness of the Kansas colleges and universities can best be achieved by utilizing the expertise within the six institutions rather than by attempting to impose reforms developed by a large central staff or by outside consultants.
4. The achievement of effective coordination over the long run is dependent upon the establishment of a *continuing process* of interinstitutional program monitoring and review. While definite plans for improving efficiency, where possible, must be devised and promptly carried out, academic planning should be conceived of as a continuous process and not primarily as the development of a single master plan, as important as master plans are as guideposts in the continuing process.
5. While unjustifiable duplication of programs should not be permitted, in some instances duplication is both necessary and desirable—and not particularly costly. The desirability of providing college opportunities within a reasonable distance to students, of making available well-rounded undergraduate programs at each institution, of providing support courses for major fields of emphasis, and of avoiding the problems that would accompany the massing of all students of a single major at one institution—these are among the factors which must be considered when assessing the justification of duplication.

Procedures Followed in the Study

Any group charged with the responsibility for making studies and presenting plans and recommendations must rely heavily on valid information. Accordingly, it was first necessary for COCAO to determine the basic facts concerning the nature and extent of duplication of programs among the Regents' institutions and the types of cooperation already in existence. Therefore, the following actions were initiated:

1. Detailed and accurate information was assembled concerning such factors as enrollments; admissions, retention and attrition; faculty ac-

tivity (yielding preliminary instructional cost data); program offerings; research; extension, public service and continuing education; physical facilities; student life; and libraries. (Summaries of initial findings are reported in Appendix A.)

2. Reports were requested from the heads of similar programs in various institutions and were critically reviewed by COCAO. Engineering Deans, Education Deans, Graduate Deans, Directors of Continuing Education, etc., were requested to explain the rationale for their present operations and to recommend ways to make better use of the state's resources without seriously hurting the quality of instruction or the services rendered to the state.
3. Costs of educational programs in Kansas and comparable states were explored and the relationships studied between duplication of programs, numbers of students enrolled and instructional costs.
4. Each institution's concept of its mission was analyzed along with probable future thrusts and limitations of its development.

On the basis of preliminary findings from the foregoing analyses, it was concluded that a significant degree of coordination and cooperation in fact now exists within the Regents' system and that the Kansas institutions compare favorably in educational results obtained for the dollars spent. This suggested that drastic reorganization of the system and reallocation of functions within it would not be in the best interests of the state. It was agreed, however, that instructional programs of high cost and low enrollments need be identified, that some immediate pruning of current programs should be undertaken and that careful controls of future program development through further clarification of the mission of each institution and intensive review of offerings of marginal productivity should be recommended to the Regents.

COCAO, therefore, thoroughly reviewed all graduate and advanced professional programs and made specific recommendations that some be phased out at once and that others be placed on a provisional status (see Chapter V). In the course of its investigation, COCAO discovered additional factors (i.e. rapid shifts in enrollments, difficulties in providing expensive instruction in computer science, barriers to expansion of off-campus education desired by Kansas citizens, lack of clarity in the relationship between instruction and research on certain campuses) all of which impede sound academic planning and development. Hence, recommendations on such matters have also been included.

Nature of the Report

The Council of Presidents presents herein what it considers to be the most significant findings and recommendations from the COCAO analysis, organized as follows:

CHAPTER II – A description of the current Regents' structure for coordination and a brief characterization of the instructional mission of each institution.

CHAPTER III – A presentation of the overall picture concerning instructional costs in Regents' institutions and some of the considerations involved in deciding when it is sound public policy to offer similar programs in one or more institutions.

CHAPTER IV – A listing of steps taken recently to achieve coordination; examples of cooperative programs now in operation within the Regent's system.

CHAPTER V – Specific recommendations to the Regents for discontinuance of some programs, placing others on provisional status subject to intensive subsequent review, and making other policy changes to facilitate academic planning.

Limitations of the Report

This report should be viewed as a significant first step in a complex process. With experience, it may be expected that more sophisticated methods of analysis and evaluation, including greater emphasis upon qualitative factors, will be utilized, adding weight to future recommendations. While data never before available have cooperatively been compiled as a result of this study, that data base must continue to be further refined. In any case, programs must be reviewed continuously to assure appropriate adaptation to changing conditions.

Limitations of this report stem primarily from the enormous complexity of the subject, the limited time available for preparation of the report, the lack of adequate national and regional norms regarding the matters under investigation, and the fact that the Regents' responsibility and authority in state planning does not include the private, municipal, two-year or vocational technical institutions. Nevertheless, COCAO, the Council of Presidents and the Board of Regents believe it is a substantial beginning worthy of careful consideration by the Governor, the Legislature and the general citizenry of the state.

Chapter 2

THE REGENTS' INSTITUTIONS AND THEIR MISSIONS

The Kansas Legislature in 1925 enacted legislation creating the Board of Regents composed of nine members appointed by the Governor and approved by the Senate for staggered terms of four years. In addition to its power to appoint and remove the executive heads of the six institutions, the Board is authorized to establish general policies and to determine the scope of activities in providing for the state's needs in higher education. Although the 1925 statute has been modified by subsequent legislative actions, the Board continues to set the policies and provide for their implementation through the budgetary and fiscal process.

Priorities are in large part set and planning is principally implemented through the budgetary process. From beginning to end, this process of developing a budget takes approximately eighteen months. Budget requests are reviewed on each campus, in the Board office in Topeka, by the Regents, by the Budget Director and the Governor, and, finally, by the Legislature. Legislative appropriations are the basis on which operating budgets are developed by the institutions and reviewed by the Regents.

The Board is served by a small staff of professionals and has elected to carry out its responsibilities through the development of councils made up of representatives of the six institutions rather than expanding the central staff. These councils provide the needed analyses, information, and consultation. This is a marked departure from the approach taken by most other states, but appears to be working successfully.

The Council of Presidents. The executive head of each institution is a member ex officio of the Council of Presidents. This council meets monthly to review proposals and to make recommendations to the Regents on matters of policy. The Chancellor and the Presidents are served on their individual campuses by administrative specialists who study and make recommendations regarding problems referred to them. The Executive Officer of the Board participates in all sessions of the Council of Presidents, develops the agenda, and keeps the minutes.

The Council of Chief Academic Officers. The person on each campus who is chiefly responsible for academic affairs is a member of this council. In addition to its responsibility for academic planning, this group also serves as a review panel and makes recommendations to the Council of Presidents on matters of academic policy and programs. Proposed programs are intensively scrutinized by this council, and their need and feasibility demonstrated before they are recommended to the Council of Presidents and the Regents. Meetings are held monthly, normally for a minimum of two days, often more. The Academic Officer of the Board participates in all meetings of COCAO and prepares the agenda and minutes.

The Council of Business Managers. Although only recently given this title, the Business Managers have been meeting as a group for a decade. Meeting monthly, this council also considers matters of operation and finance and makes its recommendations to the Council of Presidents. The Budget Officer of the Board serves as secretary and the Executive Officer attends whenever possible.

Other Advisory Groups. In addition to the above, there is regular consultation on the part of other administrative groups. The graduate, engineering and education deans, directors of libraries, extension, student affairs and computer centers also meet regularly for consultation and make recommendations with regard to policies and practices. In addition, institutional research personnel on each campus, working in conjunction with the Academic Officer of the Board of Regents, have been engaged in a massive data collection effort throughout most of the past year in order to provide basic academic and other institutional data to the appropriate councils.

The key role of the faculty in institutional planning deserves special emphasis. Faculty governing groups at all of the Regents' institutions, as is the practice almost everywhere, participate fully in making decisions with respect to academic programs. New or changed programs normally are initiated within departments on the several campuses and are reviewed at the departmental and college level before going to the faculty governing board, the curriculum committee, the chief academic officer, and finally the president before being referred to the Council of Chief Academic Officers, the Council of Presidents and the Regents.

Student participation in campus governance has always been and continues to be important. On many campuses, students are regular and voting members of most councils and committees. The practice is well established that, in institutional planning, faculty members, students, administrators, and Regents should all be participants since each has a unique viewpoint and contribution to make. In recognition of this, the Board of Regents has established the State Colleges Coordinating Committee composed of students, faculty, administrators and Regents.

Missions of the Regents' Institutions

Kansans look to their public colleges and universities for future leaders in industry, government, agriculture, and the professions. They also recognize that their social and economic well-being are related to the degree of excellence of their system of public higher education. The majority agree that post-secondary educational opportunities must be available to all qualified individuals without regard to location, economic status, age, or other personal characteristics. The Regents' institutions meet this demand in part through programs of continuing education, but mostly by providing a broad range of programs at each of the units of the geographically diverse system. Each institution must provide for comprehensive study in the liberal arts and sciences as a means to meeting general education needs which are themselves prerequisite to advanced and professional study.

The coordination and planning for a system of six institutions require an understanding of the general mission they all share in common, as well as, agreement to the more specific characteristics or mission unique to each. Drawing on statutes, Board actions, and other sources, a general educational mission statement has been developed and is followed by individual instructional missions for each institution.

General Mission of the Regents' Institutions. In the process of meeting their primary responsibility to serve the higher education needs of Kansas, the Regents'

institutions serve the region and the nation as well. The primary vehicle for accomplishing this mission is instruction in the liberal arts and sciences and in selected professional fields. Specific responsibilities include:

The preservation, transmission, and enrichment of our cultural heritage.
Fostering the personal, vocational, and social growth of students.
The provision of a forum for the free development and examination of ideas.
The discovery of new knowledge through programs of basic and applied research.
The dissemination of knowledge and the provision of educationally related services throughout the state.

Instructional Mission of the University of Kansas. The University of Kansas was established to "provide the means of acquiring a general and thorough knowledge in literature, the science, and the arts, and also to provide students who desire to pursue special studies with the most approved appliances, authorities, and instruction to insure the greatest knowledge in any special branch of learning connected with university education." (KSA 76-301) This legislative charge established the University of Kansas as a general purpose university with a broad set of programs ranging from undergraduate instruction through the doctorate.

Instructional Mission of Kansas State University. Founded as the first land-grant college under the Morrill Act, Kansas State University offers programs in the applied sciences and agriculture, "without excluding other scientific and classical studies . . . in order to promote the liberal and practical education" of the general population. As a university, its intellectual center lies in opportunities for study and research in the arts and sciences, both in their own right and as they provide disciplinary support for applied and professional programs.

In keeping with the obligations of a university, opportunities for graduate or professional study at the master's degree level are provided in most fields in which undergraduate degrees are offered. Programs leading to terminal graduate degrees are offered in professional, scientific, and applied fields, and in limited supportive disciplines.

Instructional Mission of Wichita State University. The unique mission of Wichita State University is determined by its location in the state's major metropolitan area. Its programs are an essential element in sustaining the contribution which this population center makes to the economic, professional, and cultural health of the state. It provides residential, extension, and continuing education in the liberal arts and sciences and in areas required to meet the industrial, business, and cultural needs of the region.

As the Regents' urban institution, Wichita State University maintains a wide range of both day and evening programs for those residents of the metropolitan area who, because of age, family responsibilities, economic or job constraints, can avail themselves of state-supported higher education only on a part-time, commuting basis. Its mission includes development of programs utilizing the unique

resources of the urban area; it also has a special responsibility for programs accessible to the large groups of minority citizens residing in the urban area.

Development of terminal graduate degree programs is limited to those professional, technical, and applied fields required to serve urban needs and to the basic disciplines specifically required for their support.

Instructional Mission of Kansas State Teachers College. Originally founded over a century ago as Kansas' first teacher training institution, Kansas State Teachers College continues to prepare teachers, administrators, and other school personnel and offers a broad comprehensive program through the master's level in the arts, sciences and business, and to the intermediate degree level (Ed.S.) in professional education. It is unique among the Regents' institutions in its heavy emphasis on teacher preparation, in its provisions for handicapped students, in offering a graduate program in librarianship, and in preparing vocational and technical teachers in distributive education and office occupations.

Instructional Mission of Kansas State College of Pittsburg. Kansas State College prepares teachers, administrators, and other school personnel and offers a comprehensive program through the master's level in the arts and sciences and to the intermediate degree level (Ed.S.) in certain fields of professional education. Additional professional work is offered in the field of business. A special feature is the regional character of the college in southeast Kansas and the four-state region. Unique features include programs in the field of industrial technology and education for vocational teachers in industrial education.

Instructional Mission of Fort Hays Kansas State College. Like the other two colleges, it was founded as a normal school charged principally with the education of teachers. While the preparation of teaching and other personnel for the schools remains a major concern, the college is now a more nearly comprehensive institution with work through the master's degree in many fields and more advanced work (Ed.S) in a few. Professional work is offered in the fields of business, nursing, and general agriculture. The college has developed to its present place in part because it is the only publicly-assisted, four-year institution in the western half of Kansas.

Chapter 3

PROGRAMS AND COSTS: THE FINANCIAL ISSUES

One of the consistent themes of American history has been the strong belief in the availability of education for all. When the pioneer settlers of the great plains moved to establish public institutions of higher education, they clearly assumed that these institutions would be open at no charge. They believed it was in the public's interest to make higher education freely available—therefore, it was entirely appropriate for the public to foot the bill.

Recent decades have seen a marked change in this attitude, occasioned in part by the increase in the size of the bill, in part by the number of other commitments assumed by the public, and in part by the recognition that higher education serves not only the public interests but those of the individual student. Increasingly, in Kansas and across the nation, the student is being required to assume a significant share of the cost of teaching him. Quite likely, there are some in Kansas today who are under the impression that fees currently charged to students are not tuition but only "incidental" fees. Even so, public funds budgeted for the Regents' institutions have regularly increased.

The Record in Kansas

But this increase—at least in Kansas during the last ten years—must be attributed largely to inflationary factors and does not represent an actual increase in public investment in state support for higher education. During this period, the state has not in point of fact materially increased its investment in real dollars. Thus, the 1962 fiscal year appropriations for the five institutions in the system at that time (the Medical Center and Wichita State University are not included—W.S.U. was not then a part of the state system) totaled $26,013,000; the same five institutions received $60,103,000 for the fiscal year 1972. If the latter figure is translated into 1962 dollars (by adjusting for changes in the Consumer Price Index), it comes to $44,905,000 showing a 10-year increase of 72.63 percent. During the same 10-year period, these five institutions saw an increase of 71.46 percent in the number of full time equivalent students they served. Thus, current per student costs to the State, adjusted for inflation, are $904.92, an increase of less than seven-tenths of one percent over the 1961-62 figure.

Kansas has long enjoyed a reputation for valuing and supporting higher education. Though Kansans may not consciously be willing to concede that this state cannot afford a vibrant system of public higher education, there is evidence of an erosion in this support during the last decade. In 1965-66, Kansas ranked *fourth* in the nation in terms of per capita expenditure of state funds for higher education. In 1968-69, it ranked *sixteenth*, and by 1971-72, it had slipped all the way to *twenty-sixth*.[1] At the same time that the national average for state support of higher education rose during the decade from 1961-62 to 1971-72 by 346 percent, the increase in Kansas amounted to 181 percent, just about one half of the national average. For the five Regents' institutions, again excluding Wichita State, the figure was 135 percent. Thus, despite substantial increases in

state appropriations, it is clear that, compared to other states, Kansas has fallen seriously behind in this critical area.

Financial support is frequently taken as an indirect measure of quality, perhaps because those institutions with general reputations for excellence have also had the largest financial resources to support their programs. When the ability of an institution to compete effectively with similar institutions in other states is impaired by limited financial resources, its major recourse for maintaining quality is to improve its efficiency. An efficient, modestly-supported institution can provide the same quality of education as a considerably less-efficient but well-supported one.

While efficiency and economy of operation are desirable attributes of any educational system, data relevant to these concepts are not easily obtained. This is primarily because different states use different systems for reporting data on educational revenues and expenses. Recently, the National Center for Educational Statistics of the U.S. Office of Education has attempted to standardize definitions and categories of income and costs. This Center made its latest national data available to us on a pre-publication basis.[2] These data pertain to fiscal year 1970.

Taking into account those costs directly attributable to instruction, instructional salaries and materials, non-sponsored research, libraries, physical plant maintenance and operation, the average *unit* cost *per degree* in the Regents' institutions for 1970 was $7,386.[3] This figure includes student fees which in Kansas account for approximately 25 percent of the total. In the great plains states as a group (Oklahoma, Missouri, Iowa, Nebraska, Colorado and Kansas), the unit cost was $8,412. The national average for state assisted institutions was $9,588. Since the ratio of graduate to undergraduate degrees in Kansas was the same as for the region and slightly higher than the national average, the relatively low cost per degree in Kansas cannot be attributed to concentration on the less expensive undergraduate degrees.

These figures are consistent with either of two interpretations: (1) quality of publicly-supported higher education is lower in Kansas than for the region and nation; or (2) efficiency is higher in Kansas' publicly-supported institutions than in similar institutions across the region and throughout the nation. Although it is indirect evidence, the fact that all Kansas institutions are fully accredited and enjoy generally favorable reputations in comparison with similar midwestern institutions suggests a satisfactory quality of education has been maintained.

It must be pointed out, however, that there are limits in the extent to which "efficiency" can make up for limitations in support. The figures previously cited in this chapter on the "slippage" in the ranking of Kansas among the various states with respect to per capita state support of higher education raise serious questions as to the quality of such education in the future, unless we can achieve *both* greater efficiency *and* greater support.

Duplication—Needless or Necessary?

Even though comparative data suggest that Kansas gets more for its higher education dollar than most states, it is evident that higher education constitutes one of the largest segments of the State's total budget. In a time of increasing

resistance to higher taxes, it is natural to ask whether or not costs would come down if there were less duplication of effort.

Any significant analysis of the costs of duplication in higher education must consider not only the direct costs to the institution and the system, but also the total cost to society. Studies show that proximity of colleges to population is a major factor in determining whether people go to college. In many cases it is the proximity of educational offerings which allows the student to continue to live at home, to continue to work, and to avoid the costs associated with moving to a single location where a non-duplicated program is available. Thus, if duplication were completely eliminated, the state's direct cost might be lowered somewhat, but the total cost to society would be greatly increased as higher education became less readily available to many of the people of the state.

The point also needs to be stressed that the Regents' institutions are necessarily responsive to public concerns and demands. Public demand frequently takes the form of legislative action. Recent examples of legislative action have been to bring additional institutions into the state system, to provide state aid to private and municipal institutions, to assign specific academic programs to certain institutions, and to designate certain research activities to specific institutions within the system. It is obviously the prerogative and responsibility of the legislature to act in what it believes to be the public interest. Nonetheless, some existing duplication is the result of this legislative choice.

No less important is the matter of student demand. The laws of the State open all six institutions to graduates of Kansas high schools. Many citizens of the State would argue that, even beyond the beginning undergraduate enrollment, the Regents' institutions should provide all qualified residents of the State with the kind of education they desire. When student demand for any educational program exceeds available opportunities, pressures soon emerge either to enlarge the program or establish a like program elsewhere. As a general rule, a program is likely to remain unique only as long as it is capable of meeting reasonable aspirations of Kansas students seeking education in that field. If substantially larger numbers seek admission than can be accommodated, the normal processes of a democratic society will eventually result in the establishment of another program.

On the face of it, complete elimination of duplication is both unrealistic and unwise. In view of the common purposes of most higher educational institutions, including those under the Regents' jurisdiction, duplication in the basic arts and sciences at the undergraduate level is both necessary and desirable. The foundations of knowledge are in these areas: mathematics, the natural sciences, the social sciences, and the humanities and fine arts. These disciplines not only contribute to the intellectual, personal, and social development characteristic of the educated individual but also serve as the roots of specialization in any academic or professional field.

Duplication—To What Degree?

Given these considerations, it is not surprising to find that all six institutions offer undergraduate programs in mathematics, the natural sciences, humanities,

social sciences, business administration, and education. Even so, differences in institutional missions have resulted in quite different profiles of emphasis. For example, 30 percent of the credit hours taught at the University of Kansas in the fall of 1971 were in the humanities area, with about one-sixth of these at the graduate level; only 19 percent of its credits were in the sciences or mathematics. At Kansas State University, the relative emphasis on humanities (23 percent) and science-mathematics (26 percent) was reversed in keeping with the applied science commitment of land-grant institutions. The only urban institution in the system, Wichita State, gave its major undergraduate emphasis (42 percent of all credits) to social sciences, disciplines particularly relevant to the problems of urban living. More than the three universities the three colleges placed an emphasis on the professional preparation of teachers and of businessmen (37 percent versus 17 percent for the universities), with fairly balanced offerings in the natural science-humanities-social science areas. Thus, while some necessary overlap exists in all of these broad areas, it has not resulted in institutions which are carbon copies of each other.

Over the years, there have been various attempts to define the particular missions of the institutions operating under the Kansas Board of Regents. Such statements have tried to depict special areas of emphasis for the six institutions in order to provide each with a distinctive character and to eliminate *needless* duplication.

Institutional missions have been sufficiently distinctive so that only partial overlapping occurs in some fields. For example, architecture is offered only at the University of Kansas and Kansas State University; engineering is offered only at the three universities; doctoral work in computer service is offered only at the University of Kansas and Kansas State University; American Studies is offered only at the University of Kansas and Wichita State University. Even in these fields where apparent duplication exists between two or three institutions, specializations have emerged at each institution which permit each to make a relatively unique contribution.

As a general observation it can be further stated that programs are initiated at only one institution in fields which are highly technical, which require sizeable investments in facilities or equipment, or which require faculty with unique skills and backgrounds. It has only been when student demand has outstripped facilities that other institutions have been authorized to enter the field.

At the present time, a sizeable number of singularly unique programs are offered at the Regents' institutions. In each case the unique programs are consistent with the distinctive role implied by the institutional mission. Unique degree programs occur at the University of Kansas in astronomy, classics and classical archaeology, East Asian area studies, history of art, human development, Latin American area studies, law, linguistics, musicology, music therapy, Oriental languages and literature, pharmacy, public administration, radiation biophysics, Slavic area studies, Slavic languages and literature, and social work. At Kansas State University, unique programs are provided by its Colleges of Agriculture, Home Economics and Veterinary Medicine and by curricula in adult and occupa-

tional education, agricultural engineering, and nuclear engineering. Wichita State offers unique programs in Administration of Justice and its College of Health Related Professions. Kansas State Teachers College offers the only graduate program in librarianship and Kansas State College of Pittsburg offers a unique program in trade and industrial education.

The nature of scholarly work dictates that efforts be expanded not only to dispense knowledge and understanding, but to expand them. Traditionally, graduate programs have assumed these obligations. In view of the active undergraduate effort in basic fields at all six of the Regents' institutions, it is therefore not surprising to find some overlapping in graduate programs.

However, a closer investigation reveals that quite distinctive patterns of emphasis occur at the graduate level. Table 1 shows, in percentage form, the graduate degrees awarded in each of six broad fields of study over the past five years. Both institutional percentages (in parentheses) and system-wide percentages are shown.

TABLE 1

Percentage of Graduate Degrees Awarded by Regents' Institutions, 1966-1971

Field of Study

	Humanities-Arts	Physical Science	Biological Sciences	Social Sciences	Education	Business
K.U.	46.2	42.3	22.2	40.5	20.7	34.2
	(26.9)	(20.4)	(5.9)	(15.6)	(23.3)	(7.9)
K.S.U.	12.8	32.6	56.7	23.3	9.3	4.1
	(12.7)	(26.7)	(25.6)	(15.4)	(18.0)	(1.6)
W.S.U.	14.2	12.1	1.3	7.1	12.0	27.6
	(22.4)	(15.7)	(1.0)	(7.3)	(36.4)	(17.3)
K.S.T.C.	10.7	7.2	9.9	10.4	31.0	15.8
	(11.3)	(6.2)	(5.0)	(7.3)	(63.5)	(6.7)
K.S.C.	7.5	5.2	5.9	11.3	15.2	5.1
	(14.1)	(8.0)	(4.9)	(14.1)	(55.1)	(3.8)
F.H.K.S.C.	8.5	0.1	4.0	7.4	11.9	13.3
	(19.4)	(1.4)	(4.1)	(11.1)	(52.1)	(12.0)

X.X = Percent of graduate degrees in the field awarded by all Regents' institutions.
(X.X) = Percent of institution's graduate degrees.

The three colleges have clearly concentrated their graduate work in the professional education area, with a relatively balanced, moderately sized graduate program in the basic arts and sciences and business. Graduate degrees at W.S.U. show special concentration on business and the humanities-arts area, as well as in education. At K.S.U., a relatively high number of graduate degrees have been awarded in physical and biological sciences (including Agriculture and Veterinary Medicine). The K.U. record shows it has awarded from 20 to 45 percent of the system's degrees in each field with a fairly even emphasis across fields.

Program Size vs. Cost

Institutions must constantly be on the alert for ways to bring about greater efficiency of operation, to obtain the maximum educational production from

available operating funds. It is therefore instructive to analyze higher education expenditures on the basis of program size as it relates to unit cost.

If, as commonly accepted, the programs with the smallest enrollment are the most expensive, then the institution with the largest program should have the lowest credit hour costs, and the institution with the smallest program should have the highest credit hour costs in each field.[4] Master's degree programs are offered by three or more of the Regents' institutions in 18 fields of study. However, in only 10 of the 18 fields were the lowest unit costs found at the institution with the largest enrollment; and in only 7 of the 18 instances were the highest unit costs associated with the smallest program.

At the doctoral level, K.U. and K.S.U. award doctoral degrees in 18 overlapping fields of study. In 8 of these, the lower costs were in the larger program (and the higher costs in the smaller program); but in 10 instances, the smaller program also had the lower costs. These analyses suggest that the relationship between size of program and cost is not always a direct one.

Although this analysis makes it clear that costs per student would not necessarily be reduced by simply increasing the numbers enrolled, it did not eliminate the possibility that very small programs are disproportionately expensive. To examine this possibility more directly, master's degree programs were divided into those graduating five or more per year and those graduating less than five. Similarly, doctoral programs were divided into those granting two or more degrees per year and those granting fewer than two per year. The average instructional salary cost per credit hour for the smaller master's degree programs was $92.47 compared to $43.98 for the master's programs graduating five or more per year. The average cost per credit hour for the smaller doctoral programs was $109.51 compared to $75.84 for the larger programs. These results show that in general relatively inactive programs are expensive. Apparently, while a large program is not necessarily associated with economic benefits, very small programs do have decided economic disadvantages. Where programs are likely to remain small, but where there exists a steady demand for their graduates, there appears a need to further explore the feasibility of inter-state cooperative agreements.

Summary

The data reviewed in this chapter point conclusively to the fact that the Regents' institutions have provided higher education efficiently and economically. Existing duplication of programs in the basic areas of liberal arts is both necessary and desirable. Necessary in the sense that a broad education in the basic liberal arts is essential preparation for almost all specialized and professional study; and, desirable in the sense that such social factors as geographical location of students and their ability to travel would preclude their participation in certain areas of academic preparation.

FOOTNOTES

1. Chambers, M.M. *A Record of Progress: Ten Years of State Tax Support of Higher Education*, 1961-62 through 1971-72. Danville, Illinois: The Interstate Printers and Publishers, Inc., 1972.

2. National Center for Educational Statistics *Current Funds Revenues and Current Funds Expenditures of Institutions of Higher Education, By Control and Level of Institution and By Region, State, or Other Area, and Source or Function:* Fiscal Year 1969-70. Washington, D.C., U.S. Government Printing Office, In Press.

3. U.S. Office of Education *Earned Degrees Conferred:* 1969-70 Institutional Data. Washington, D.C., U.S. Government Printing Office, 1970.

4. The "costs" examined in the remainder of this chapter consider faculty salaries only. Costs associated with materials, equipment, physical plant, and the wages or salaries of non-professional personnel have not been included.

Chapter 4

EVALUATION AND COORDINATION

The institutional heads of the Regents' institutions have each had extensive experience with the public higher education in other states and have had first-hand experience with a variety of patterns of system-wide coordination. Giant and expensive bureaucracies have been created in many states such as New York, California, Illinois, and Florida. Kansas, instead, has elected to effect the needed coordination among the Regents' institutions by relying on a small professional staff and several councils. The Council of Chief Academic Officers plays a continuing role in reviewing, evaluating and coordinating program development at Regents' institutions. This chapter describes that role.

Review of New Programs

The current procedure for program review was adopted by the Board of Regents July 10, 1970, and subjects all new program proposals to a systematic plan for evaluation. All proposals for new academic units and programs are now reviewed by COCAO prior to presidential and Board action. This procedure is intended to insure a system-wide analysis of the need for new programs and to provide the Council of Presidents and the Board with an important and effective planning tool. COCAO's responsibility involves placing all program proposals into one of four categories: (1) highest priority, (2) recommended strongly, (3) forwarded approved, (4) forwarded without approval. These recommendations are then sent to the Council of Presidents for further review before they are forwarded to the Academic Committee of the Board of Regents.

The major objectives of this procedure are:

1. To prevent undesirable duplication of programs among the six institutions; and
2. To insure that resources are available to produce programs of high quality.

Since enactment of this procedure, the Council has reviewed 28 proposals for new programs or program changes which specifically require Board approval. Of these, only one (the joint K.U.-K.S.U. Computer Science Ph.D. program) was placed in Category I, Highest Priority. In addition, eleven programs were placed in Category II, Recommended Strongly; six programs in Category III, Forwarded Approved; and ten programs in Category IV, Forwarded Without Approval.

As part of the review process, the Council also makes recommendations concerning programs or changes of limited or lesser significance that require action only by the Academic Committee. During the past two years, the Council has forwarded recommendations to the Academic Committee as follows:

Approval recommended - 20 programs or changes.
Approval not recommended - 3 programs or changes.
Approval for authorization to seek federal funding - 3 programs.
Forwarded for Academic Committee information - 2 programs.

Coordinating Efforts

Peripheral to the development of a system-wide analysis of the academic needs of the Regents institutions, but of considerable significance to the development of a state-wide system of higher education, have been the following cooperative achievements initiated through COCAO:

1.) Though all six state colleges and universities have operated under a single board, a common letter of appointment for their faculty and staff had not been utilized. Consequently, variations in the interpretations of Board policies were found to result. *A common letter of appointment* designed by COCAO has now been initiated with contractual policy stated in uniform language at each institution.

2.) All Regent institutions have employed a procedure for determining student grade point averages in the past. However, they were each based on institutional preference and not on the same scale. As a result, institutional grade point averages were not comparable and required translation. Transfer students found the transition from one institution to another and the accompanying evaluation of transcripts to be that much more complicated. At COCAO's recommendation, *a uniform grade point scale* for determining grade point averages has now been implemented at all Regent institutions.

3.) For the first time in recent years, the Regent institutions have agreed to maintain *a uniform academic calendar* at each of the six state colleges and universities. The calendar will be initiated with the 1973-74 academic year. It provides for a full 15 weeks of instruction per semester with common starting and ending dates for each semester as well as for official vacation dates. Within this framework of common dates, each institution will have latitude to arrange a calendar that fits its own particular programs. COCAO anticipates that a common starting and ending date for each semester will allow a smoother transition for those students transferring between state institutions.

4.) With the printing of the next issue of the college catalog on each campus, each of the Regent institutions will implement *a common system of course numbering*. The adoption of this system will enable each institution to systematically identify the college, department, level of course, type of course, program category and program subcategory in which each course is offered and will provide a common system of classification of academic information. COCAO views the completion of this transition as a major milestone in the establishment of a comparable academic data base among Regent institutions as well as further lessening the problems for students transferring between institutions.

5.) A state-wide system whereby classroom instruction is conducted via telephone lines linking classrooms in twenty-three Kansas communities has been cooperatively initiated for the first time this year by the six Regent institutions. Courses are offered for extension credit from the school originating the course. This *telenetwork system* was developed through the joint efforts of COCAO and the Continuing Education Directors on each campus as a means of making course offerings from all of the state colleges and universities accessible through convenient locations to greater numbers of the adult population in the state.

6.) *A Computer Advisory Committee*, with representatives from the Computing Centers of each of the Regents' institutions and the Budget Officer of the Board of Regents, was formed in 1970 to study the computational needs of the six institutions and to make recommendations on a coordinated system to meet these needs. It has met regularly and recommended in last year's budget a coordinated plan for updating the computational abilities of the colleges while maintaining and relating the capabilities of the three university computing centers. This proposal was not funded but has been resubmitted for 1973-74 fiscal year. There are several areas where cooperative efforts among the six centers and the medical center have been put into effect to share facilities and programming

7.) COCAO has held three joint meetings with representatives of Kansas junior colleges for the purpose of formulating uniform *policies for the transfer* of junior college students with an Associate in Art degree to one of the six Regent institutions. Periodic meetings between COCAO and the Academic Deans of the community colleges have recently been initiated for the purpose of improving coordination between the community colleges and the Regent institutions.

Cooperative and Joint Programs

In recent years, a number of joint and cooperative programs have been developed by cooperatively pooling the supportive resources of the Regent institutions. All six institutions are committed to the concept of cooperation in areas where the program is educationally sound and where the most economical use of the state's resources can best be achieved through such effort. While such programs may be offered at any level, they have been most frequently appropriate at the doctoral level.

The purpose of the development of inter-institutional programs is to:

— avoid and reduce program duplication
— provide programs that a single institution would not have sufficient resources to develop
— extend existing programs to additional geographical areas of the state
— achieve differentiation of function where two or more institutions are engaged in related programs.
— provide programs in which there is insufficient student enrollment at any one institution to justify the program.

Joint Programs. In joint programs, two or more Regent institutions share responsibility. Such programs may be established under the following conditions:

— The program is consistent with the mission of the institutions involved.
— A better quality program will result from combining the resources of the two or more institutions.

In joint programs, specific provisions should be made for joint participation in decision making, sharing responsibilities, and effecting economies through cooperative efforts.

Cooperative Programs. A cooperative program involves faculty members at more than one of the Regent institutions; however, only one institution is

authorized to confer the degree in question. Such programs may be established when:

- — The degree-granting institution has an established program consistent with the institution's mission.
- — The mission of the cooperating institution is consistent with the objectives of preparing students for advanced study in the program.
- — The cooperating institution employs faculty members who are acceptable as "cooperating faculty" to the degree-granting institution.

The following programs are examples of joint or cooperative efforts now in existence in the Regents' institutions and in which students are currently enrolled:

Joint Doctoral Program in Computer Science, K.U.-K.S.U. In reviewing program requests for a doctoral program in computer science from both Kansas State University and the University of Kansas, COCAO in its 1971 New Program Review recommended that the two institutions merge their efforts in order to create a joint doctoral program with different and non-overlapping areas of specialization on each of the two campuses. The program was initiated on a joint basis and the necessary procedures worked out for clear separation of specialization areas on the two campuses and for full transferability of credit between the two portions of the program.

Cooperative Doctoral Program in Aerospace Engineering, K.U.-W.S.U. A cooperative doctoral program in aerospace engineering involving the faculties of both the University of Kansas and Wichita State University has been in existence for almost three years.

Cooperative Chemistry—Chemical Engineering Program, K.S.U.—K.S.C. Pittsburg. A cooperative program involving these institutions was developed in the area of chemistry. Under the provisions of this program, students who complete three years of work in chemistry at Kansas State College of Pittsburg may then transfer to Kansas State University where, upon completion of two additional years, they are awarded a Bachelor of Science in chemistry by Pittsburg and a Bachelor of Chemical Engineering by Kansas State University.

Cooperative Doctoral Program in Chemistry, K.U.-W.S.U. In 1969, Wichita State University initiated doctoral level activity in chemistry in cooperation with the University of Kansas. Students and selected faculty members at Wichita State participate in the well established doctoral program of the University of Kansas. This cooperative arrangement provides Kansas students access to doctoral studies in chemistry without establishing independent, competitive programs.

Cooperative Doctoral Program in Education, K.S.U.-K.S.C. Pittsburg. In this cooperative Ph.D. program which emphasizes adult and occupational education, the degree is awarded by K.S.U. The students' doctoral supervisory committee includes a faculty member from Kansas State College of Pittsburg, who, in consultation with appropriate K.S.U. faculty members, provides the student with early program planning to insure his orderly transition into the final phase of his work at K.S.U. At least twenty-four hours of course work is completed at Kansas State. This joint program provides an excellent opportunity for the unique strengths of both K.S.U. and K.S.C. to be utilized.

Cooperative Library Efforts. In an effort to increase the availability to all institutions of library material held by any one of the Regents' institutions and to reduce the need to duplicate on several campuses rarely used library holdings, the library directors at the six institutions have developed a number of cooperative arrangements. A teletype network linking the libraries allows rapid response from any one library to the inquiry of another. A courier van makes a circuit including K.U., K.S.U., W.S.U., Emporia and the Medical Center at intervals of two to three days, transporting books, journals, and other materials needed at one of the institutions and available at the library of another institution. This cooperative system has increased utilization of the collections of all the libraries and reduced need for duplication in holdings.

The Clinical Program for Physicians' Training, K.U. Medical Center—W.S.U. The Wichita State University branch of the University of Kansas Medical Center is another cooperative effort approved and authorized by the Board of Regents although not yet fully implemented. Under this program, a significant number of medical students at the University of Kansas Medical Center, after completing their first year at Kansas City, will take the remaining clinical years of their program at Wichita. This arrangement allows a larger class size than could be accommodated at the Medical Center alone, and it utilizes the extensive clinical resources of the private hospitals in Wichita and responds to the state-wide need for more physicians.

Multi-institutional Teacher Education Centers, All Regents' Institutions and Washburn University. The MITEC Program is a cooperative effort among the Regents' institutions and Washburn University to provide student teaching opportunities in large municipal school systems for students at the Regents' institutions. Centers have been established at Wichita, Kansas City/Shawnee Mission and Topeka. Student teachers spend a full semester in residence at one of the centers, during which time they have the opportunity to work closely with instructors from the supervising institution as well as the cooperating teachers and supervisors from their own institution. This cooperative program makes available greatly expanded and more uniform student teaching experiences for future teachers from all of the Regents' institutions.

These are some examples of efforts that have been undertaken principally during the three years of the existence of the Council of Chief Academic Officers. They reflect a genuine and continuing desire on the part of the Regents, the presidents, the vice presidents, and others to work in as close cooperation as possible given the immutable facts of physical separation in a state as large as Kansas. Continuing efforts will certainly result in more cooperative efforts.

Criteria for Establishing Duplicate Programs

The Council of Chief Academic Officers discussed at length the findings from numerous reports as they sought to answer the question: Are the institutions under the Board of Regents making the most effective use of their resources to meet the needs of Kansas and Kansans?

They first reviewed undergraduate programs and concluded that each insti-

tution provides, as it should, instruction in the foundations of knowledge through the basic arts and sciences. As mentioned previously, duplication in these areas is essential to the intellectual, personal, and social development of students, and is consistent with the best interests of the state.

In the case of duplicating programs providing specialization beyond the basic foundations, it is clear that there must be certain additional limitations in their development. *COCAO concluded that duplicative advanced graduate and professional programs should be approved when they are consistent with the institution's mission and if they comply with the following guidelines:*

1.) A duplicating program at the master's level can be authorized on the basis of need, cost, and institutional mission provided the annual number of bachelor's degrees in the department (all subspecialties) averages 20 or more for the previous five years in accordance with Regents' policy.

2.) New programs should not be undertaken in the absence of substantial student interest and social need. Evidence of social need includes state or federal legislation in support of the program, demand for its graduates, and negative social consequences if the program is not provided.

3.) New programs should not be initiated if other institutions are meeting the state's and the nation's social needs and if Kansas' citizens have access to such programs on a non-discriminatory basis.

4.) No program should be undertaken unless its quality can be assured by the human and economic resources of the institution.

5.) High cost programs should be developed only when there is *compelling* justification in terms of social need and when there is *strong* evidence that the program's quality will be assured by the institution's resources. Such programs should not be duplicated at more than one institution unless the existing program cannot meet society's needs for its graduates or unless it is essential to support unique programs which are essential to the institution's mission.

6.) Where two institutions offer programs of like nature, the precise duplication involved needs to be identified. Such scrutiny should specifically be applied to:

— Undergraduate degree programs in fields requiring unusually costly investments in equipment or facilities at two or more;
— Master's or specialist's programs in the basic liberal arts and sciences where less than 20 undergraduate degrees are granted annually;
— Programs offering professional degrees above the bachelor's level or master's degrees in professional fields (education, business, etc.);
— Programs offering doctoral degrees.

Chapter 5

SUMMARY AND RECOMMENDATIONS

Summary of Rationale for Program Review

The investigation of programs offered at each of the six Regents' institutions, including an analysis of comparative cost figures, institutional missions, and the current status of coordination and cooperation among the Regents' institutions led the Council of Presidents to conclude that, for the most part:

- The state's resources are being used prudently in the Regents' system —overall costs are not out of line considering the quality of the educational and research programs in operation.
- Considerable differentiation of functions and programs exists at present—the colleges and universities are not simply carbon copies of one another.
- Procedures for system-wide coordination and cooperation have been greatly improved within the last two years.

These observations led the Presidents to believe that a major overhaul involving drastic reorganization of the Regents' system is not now necessary or desirable.

At the same time, the studies identified some instances of unwarranted program duplication, some non-productive curricular "deadwood" that should be cleared away, and considerable need for greater clarity in the stated functions of the institutions and in policies and procedures influencing coordination and cooperation throughout the system. Hence, recognizing a continuing obligation to achieve the most efficient use of the state's resources consistent with maintenance of quality programs, the Council of Presidents instructed the Council of Chief Academic Officers to continue its analysis stressing:

- careful pruning of existing course offerings.
- further clarification of the specializations to be emphasized at each college or university, and
- more explicit provision for critical cooperative monitoring of future program development at each institution.

All current programs at the Regents' institutions have consequently undergone intensive review. Principal factors considered in the process have been: 1) compatibility with institutional mission, 2) social need within the state, 3) unit cost of instruction (by program and by level), and 4) demand, as indicated by credit hour production and number of degrees awarded (by program and level). Based on this review, all graduate programs at the Regents' institutions have been placed in one of the following categories:

1. those to be continued,
2. those to be on provisional status,
3. those to be discontinued.

Additional factors considered in classifying programs in education, engineering, and in the graduate arts and sciences are outlined in the sections devoted to each of these areas.

Because time for preparation of this report was limited, attention has been focused primarily on programs at the graduate level which merit early attention because of their specialized nature and their high intrinsic cost. In subsequent reviews, it is planned that increased attention will be given to undergraduate programs.

A number of related policy matters have likewise been subjected to analysis, including the review process itself. Recommendations on these items are also included in the following pages.

ACADEMIC PROGRAMS

Engineering

Of all the fields of higher education, few if any have been subject to greater fluctuation in enrollments than engineering. Since World War II, the pendulum has twice swung between extreme overcrowding and dangerously dwindling enrollments. Planning for schools of engineering is hampered by this history of instability.

At the height of the demand for engineering graduates a few years ago, K.U., K.S.U. and W.S.U. had bulging enrollments. Today, many persons are critical of what appear to be too many programs in engineering education. The speed with which these prospects change has recently been demonstrated most dramatically in our own state. A year ago, the depressed condition of the aircraft industry in Wichita was national news, and yet this spring a single aircraft company there sought to hire *all* of Wichita State University's 1972 graduates in electrical engineering and a major portion of those in aeronautical and mechanical engineering.

There is duplication in engineering education programs in Kansas, and such duplication is costly. The crucial question is: Is this duplication essential? If enrollments remain at the present levels, the answer must be "no." But if we are entering upon a new cycle, an era of increased demand for engineers, then current engineering education resources in our state will be taxed to their limits. Therefore, the premium must be on flexibility.

Kansas engineering school costs compare favorably with national averages. A comparison of K.U., K.S.U., and W.S.U. with the engineering colleges in the southeastern United States (which for many years operated on very low budgets) shows the Kansas schools to be lower than average in all expenditure categories than the schools in that sample. Yet, in spite of this relatively low expenditure rate, the Kansas engineering schools enjoy an enviable national reputation. There is no question that each school provides quality education for prospective engineers.

K.S.U., in keeping with its mission as the state's land-grant institution, has a major commitment to education in applied science. It should be expected to

foster and develop engineering education to the fullest, including continued involvement in interdisciplinary programs throughout the university.

K.U. has maintained a strong engineering program virtually from the day of its founding. Many of its engineering activities are closely related to effective programs of instruction and research in basic sciences.

W.S.U.'s place in engineering education is largely determined by its character and location. Support of the industrial concentration of the metropolitan area with its sophisticated technical needs requires engineering education to be available to part-time graduate and undergraduate students as well as to full-time students.

The question is not whether each state university should support engineering education programs, but rather how much and what kinds of engineering should be offered at each university. To resolve this question, specifically in the light of current circumstances, COCAO requested the engineering deans to study the issues in depth.

Such a review by the deans at K.S.U., W.S.U., and K.U. and by COCAO has, to some extent, been reassuring as it suggests that resources are being effectively utilized, and the costs of engineering education are not above those in comparable states. Moreover, in the past three years, significant readjustments have been made in each engineering college in Kansas to accommodate the recently declining enrollments and the shrinking employment market. On each campus faculty positions have been removed from the colleges of engineering and reassigned to other programs to meet the needs of expanding enrollments. This, in turn, has resulted in a curtailment of some offerings and a combination of others.

RECOMMENDATIONS: 1) Upon the basis of need, productivity, cost and relation to institutional mission, it is recommended that certain graduate programs in Engineering be discontinued and that certain others be placed on provisional status (see Summary of Recommendations for Graduate Degree Programs, page 30).

2) The engineering deans should commence a study of the possibility of generalized degree programs to replace currently designated programs and report their recommendation by the fall of 1973.

3) An annual meeting should be held between COCAO and Kansas engineering deans to review developments, costs and productivity, and to insure compliance with appropriate guidelines.

Education

More students are enrolled in programs in education in all colleges and universities in Kansas than in any other field. In 1970-71, the Regents' institutions awarded a total of 3,528 degrees in Education, representing 28% of all degrees earned in these schools. No Regents' institution has awarded less than 400 education degrees annually in recent years, and Kansas State Teachers College awards nearly 800 per year. Because of the economies of scale and the widely distributed demand suggested by these figures, it is unlikely that any appreciable financial advantage is to be gained by eliminating or combining programs in Education at

the baccalaureate or masters level within the Regents' institutions. Differentiation of effort is in order, however, at the educational specialist and the doctoral levels.

In the three colleges, work in Education represents a large share of all academic effort and is central to their history and mission. This is less so at the universities, the missions of which are broader and provide more varied emphases. The following recommendations, therefore, have been established in this context.

RECOMMENDATIONS: 1) Upon the basis of need, productivity, costs, and relation to institutional mission, it is recommended that certain programs in Education be discontinued and that certain others be placed on provisional status (see Summary of Recommendations for Graduate Degree Programs, page 30).

2) In recognition of the sustained level of high productivity and relatively low cost in all Regents' institutions, it is recommended that baccalaureate programs in Education be maintained as currently authorized at each institution.

3) Because graduate work is required for the professional advancement of teachers, a wide geographical distribution of graduate programs is desirable. In applying the criteria for graduate degree productivity, special consideration should be given to accessibility by the students in the review of master's programs.

4) The Educational Specialist degree or its equivalent is necessary for advanced positions in educational administration and counseling and guidance resulting in sufficient demand to justify these programs where currently offered. Specialist (Ed.S.) programs in industrial arts education, technology and trade and industrial education should be offered only at Kansas State College of Pittsburg. Specialist programs in all other subject-matter areas, in special education, and in school psychology should be continued at Kansas State Teachers College and at the University of Kansas. Specialist programs should be discontinued at the other schools with the exception of the program for reading consultants at Fort Hays Kansas State College. (See Table 2.)

5) There appears to be no immediate need for additional doctoral programs in Education. It is recommended that distinctive doctoral programs in Foundations of Education, Art Education, Music Education and Physical Education at the University of Kansas and Adult and Occupational Education at Kansas State University be maintained and that differentiation of emphasis in traditional programs at the two institutions be strengthened.

6) To minimize unnecessary duplication in Ed.S. and Ph.D. programs, especially where small numbers of students are involved, COCAO will, by the fall of 1975, analyze the costs of these programs and review transcripts, publications, placement records, etc., to assure appropriate differentiation. Outside consultants may be utilized as needed.

7) Because complementary strengths exist at all institutions, it is recommended that at least 15 credit hours of applicable post-master's work in

any Regents' institution be accepted toward the doctorate at the University of Kansas and Kansas State University. Interinstitutional supervisory committees may be established for such doctoral candidates where appropriate.

8) When the need is clear, consideration may be given to the establishment by W.S.U. of a doctoral program in urban education, possibly in cooperation with K.U. and K.S.U.

9) It is strongly recommended that the current cooperative efforts within the Regents' institutions in the area of Education be maintained and expanded. Current examples are the Multi-Institutional Teacher Education Centers Program (MITEC) in which all six schools cooperate to provide a unique professional educational semester and Project Kansas 76, a cooperative endeavor of the three universities and the State Department of Education to develop a unique program for preparing school administrators.

10) Finally, a planning committee comprising personnel from the colleges and universities together with consultants should be established, provided with adequate resources, and given the responsibility for implementing and coordinating the foregoing plan.

TABLE 2

Differentiation of Educational Specialist Degrees

K.U.	K.S.U.	W.S.U.
Educational Administration Guidance & Counseling School Psychology Special Education Subject Matter Areas	All Ed.S. Programs discontinued in 1969	Educational Administration

K.S.T.C.	K.S.C.	F.H.K.S.C.
Educational Administration Guidance & Counseling Special Education School Psychology Subject Matter Areas	Educational Administration Guidance & Counseling Industrial Arts Education Trade & Industries Education	Educational Administration Guidance & Counseling Reading Consultants

Limitations: Continuation of all programs will be subject to COCAO review in light of their minimum criteria for degree productivity.

Business

Business is a basic academic field for all institutions of higher education with comprehensive programs. With especially heavy proportionate demand at the colleges, enrollments in business programs at the Regents' institutions are fairly

evenly distributed and exceed 1,000 at each school. In spite of relatively high faculty salaries in business fields, large classes have kept the cost per student credit hour near the lowest at each institution. The demand for business graduates continues to be strong and provides the basis for continued expansion of future business enrollments. It seems unlikely that the need for business programs will decline during the coming decade.

The six institutions offer a wide range of approaches to business careers within the mainstream of higher education. Each program reflects much of its institution's nature, and each is an expanding and productive component of its institution. In such a basic, high-demand field, a college or university without a business program would be seriously deficient in meeting the needs of its constituency. The diversity that currently exists offers genuine choices to students, and little or no savings would be realized nor would quality be improved by elimination of any of the programs.

RECOMMENDATIONS: 1) The six Regents' institutions should maintain their current offerings and work to coordinate the development of future emphases within these programs.
2) The need for an additional doctorate program to that currently offered at the University of Kansas is not apparent in the foreseeable future.

Architecture

The accredited architecture programs at K.U. and K.S.U. are thriving. Both are operating at maximum capacity, and neither university has the facilities to house a combined program. In areas of specialization, K.U. has a predominately urban orientation while K.S.U. emphasizes the development of rural areas, the conservation, preservation, and adaptation of existing resources, and the application of technology. Differences between the two programs come from the fact that both stress integration with the related fields available at the respective institution. No savings in faculty, administration, space or equipment could be achieved by joining the programs. Both universities benefit educationally from having an architecture program that relates to its other academic disciplines.

RECOMMENDATIONS: 1) It is recommended that the M.S. in Architectural Engineering at the University of Kansas and the Master of Landscape Architecture at Kansas State University be placed on provisional status.
2) K.U. and K.S.U. should continue to maintain close cooperation to insure against unnecessary and costly duplication.
3) No offerings at the doctoral level should be planned within the foreseeable future.

Journalism

K.U., K.S.U., and W.S.U. offer degrees with majors in journalism and each is of sufficient size so that economies of scale have been realized, student credit hour costs are relatively low, and no significant savings would be accomplished through

the elimination or consolidation of programs. The programs at K.U. and K.S.U. are accredited by the American Council for Education in Journalism. The three colleges offer course work in journalism, but not a major; although K.S.C. provides for a journalism related major in printing and graphic arts.

The William Allen White School of Journalism at K.U. has a general sequence in news-editorial journalism, but has large enrollments as well in advertising and photojournalism. K.U. also has a comprehensive and well-staffed broadcasting sequence. The School has a master's program of moderate size (about 25 students a year), and its program is fairly traditional with a faculty that has been productive in scholarly pursuits.

The Department of Journalism and Mass Communications at K.S.U. has long emphasized news-editorial journalism at the undergraduate level. It has been strongly newspaper oriented, although it offers magazine-journalism courses. Although it has a good reputation for public relations courses, it offers only service courses in photography and advertising and plans no concentration in those areas. The broadcasting sequence is small and news-oriented. The graduate program has grown rapidly and is by far the largest in the state since the National Institute of Mental Health has supported students in the Masters Program in behavioral science journalism. The faculty is active in research and publication.

W.S.U. has an established department of journalism within its College of Liberal Arts and Sciences. It offers a balanced but modest program with options in news-editorial, radio television, and advertising leading to the B.A. degree. No changes in emphasis or program level seem imminent.

RECOMMENDATIONS: 1) The news-editorial emphasis and the specialty in undergraduate broadcasting should be maintained at K.U. and K.S.U.

2) K.U. should maintain a general graduate program including specialties in photojournalism and advertising, and broadcast emphasis on production and management.

3) K.S.U. should maintain graduate specialties in magazine journalism and public relations, behaviorally oriented graduate programs, news-oriented broadcasting, and specialized programs such as agricultural and home economics journalism.

4) The need for a doctoral program is not apparent in the foreseeable future.

Graduate Programs in the Arts and Sciences

This report endorses the statement contained in the report of the graduate deans: "In developing a state-wide pattern there should be defining of institutional missions . . . accompanied by selective development of programs within the several institutions . . . With at least a partial and well-identified division of labor among the institutions, the state's resources can be more wisely and effectively deployed to provide needed graduate programs of the highest quality possible without diffusing resources in unlimited and uncoordinated undertakings."

All six Regents' institutions have established study beyond the baccalaureate

degree in those fundamental areas properly associated with institutions of learning—the humanities, the biological and physical sciences, and the social sciences. These areas have substantial undergraduate enrollments, and the addition of course work leading to the master's degree has not been a phenomenon unique to Kansas. Closely associated with flourishing undergraduate programs, these master's level programs have not been excessive in cost and, for the most part, have fulfilled a need for students seeking advanced degrees. Costly doctoral study in these areas has properly been restricted, on a selective basis, to K.S.U. and K.U. A more careful study of the differentiation of subspecialties within doctoral programs is probably warranted, but with few exceptions degree production has been above minimum standards required by cost and quality consideration.

Historical tradition and geographical location have been significant in the evolution of "institutional mission" in the area of graduate programs in the arts and sciences. K.U. has a wide range of graduate programs in the humanities, the behavioral and social sciences, and the fine arts. Its strongest and most widely-recognized programs are in the biological and physical sciences and mathematics. K.U. should continue to be distinguished by its master's and doctoral work in fields usually associated with the arts and sciences.

As the land-grant university, K.S.U. places a strong emphasis at the doctoral level on fundamental and applied science while supporting the humanities and social sciences largely at the master's level. K.S.U. offers one doctoral program, however, in the humanities and three doctorates in the social sciences. K.S.U. should continue to be distinguished by its graduate programs in the pure and applied sciences and to offer selected and limited work in the social sciences and humanities.

Geographical location provides W.S.U. with both the opportunity and responsibility for service to the state's largest urban center. Its future development as the newest Regents' institution will be in the fields of urban emphasis, utilizing the resources of its metropolitan community. In the arts and sciences, it will not in the foreseeable future go beyond its present strong core of master's level programs.

K.S.T.C., K.S.C. and F.H.K.S.C. have in common a tradition of service to the teaching profession and to the needs of the populace in their geographical location. In meeting these responsibilities, they have developed master's level programs in many of the arts and sciences but have no need to go beyond that level of graduate work in these areas except to meet the professional needs of school personnel.

In assessing the current status of graduate programs, the graduate deans, at the suggestion of COCAO, surveyed the six institutions to determine the number of advanced degrees awarded in each graduate degree program over a period of five years (1966-1971). On the basis of established patterns in other states, they assumed in their review of graduate programs that those awarding two or more doctorates or five or more master's degrees as an annual average over a five-year period were sufficiently productive to justify continuation. Recommendations on programs not meeting these initial levels were made on an individual basis. This

report accepts the validity of these productivity assumptions and recommends the application of the following minimum degree productive criteria for graduate programs. Though it is possible to conceive of supportable exceptions under extenuating circumstances, it is expected that these guidelines will be observed in the overwhelming majority of cases.

RECOMMENDATIONS: 1) It is recommended that the following criteria be applied in the review of graduate programs:

a. Master's programs with an average annual production of between 2 and 5 degrees shall be placed on provisional status.

b. Master's programs with an average annual degree production of fewer than 2 degrees shall be discontinued.

c. Education Specialist programs with an average annual production of 1.5 to 3 degrees shall be placed on provisional status.

d. Educational Specialist programs with an average annual production of fewer than 1.5 degrees shall be discontinued.

e. Doctorate programs with an average annual production of between 1 and 2 degrees shall be placed on provisional status.

f. Doctorate programs with an average annual production of less than 1 degree shall be discontinued.

2) On the basis of need productivity, cost and relation to institutional mission, it is recommended that certain graduate programs be discontinued and that certain others be placed in provisional status (see Summary of Recommendations for Graduate Degree Programs, page 30).

3) In order to allow new programs sufficient time to develop, productive criteria will be applied to new master's and specialist programs in their third, fourth, and fifth years of operation and to new doctorate programs in their fourth, fifth and sixth years of operation.

TABLE 3

Summary of Recommendations for Graduate Degree Programs

The following recommendations are based on need, productivity, cost and relation to institutional mission. Programs not included in the listing are recommended to be continued subject to periodic review (see section on Review Process).

ENGINEERING	Recommended to be placed in provisional status	Recommended to be discontinued
University of Kansas	M.S. in Aerospace Eng.	Ph.D. in Petroleum Eng.
Kansas State University	M.S. in Applied Mechanics Ph.D. in Applied Mechanics Ph.D. in Electrical Eng.	
Wichita State University	M.S. in Engineering Mech.	
ARCHITECTURE		
University of Kansas	M.S. in Architectural Eng.	
Kansas State University	Master of Landscape Arch.	

EDUCATION	Provisional	Discontinue
University of Kansas	Ed.S. in Elementary and Secondary Educ. Ed.S. in Counsel. & Guid. Ed.S. in Administration	MAT in Classics and Classical Archaeology MAT in English MAT in Mathematics MAT in History MAT in French MAT in Physics MAT in Social Studies MA in Higher Education MA in Research & Meas. MA in Foundations Ed.S. in Research & Meas. Ed.S. in Art Education Ed.S. in Foundations Ed.S. in Higher Education Ed.S. in Education Psych. Ed.S. in Music Education Ed.S. in Phys. Education Ed.S. in Special Educa.
Kansas State University		M.S. in Physical Sci. Tchg. (All Ed.S. programs discont. in 1969.)
Wichita State University	M.A. in Secondary Educ./ Science Educ. Ed.S. in Educational Admin.	M.A. in Education M.A. in Secondary Educ. M.A. in Physical Educ. M.A. in Educational Psych. M.A. in Student Personnel M.Ed. in Logopedics
Kansas State Teachers College	M.S. in Elementary Sci. M.S. in Special Educ: Trainable Ed.S. in Biology Ed.S. in Business and Business Educ. Ed.S. in Mathematics Ed.S. in Physical Sciences	M.S. in Educational Psych. Ed.S. in Social Sciences Ed.S. in Educational Psych. Ed.S. in Special Educ: Trainable Mentally Retard. Ed.S. in Special Educ: Emotionally Disturbed Ed.S. in Special Educ: Educable Mentally Retard.
Kansas State College of Pittsburg	M.S. in Educational Psych. M.S. in Junior & Community College Education Ed.S. in Industrial Arts Education Ed.S. in Junior & Community College Education	M.S. in Gen'l School Adm. Ed.S. in Mathematics Ed.S. in Chemistry Ed.S. in Psychology Ed.S. in Sociology Ed.S. in Elementary Education (General) Ed.S. in Secondary Education (General) Ed.S. in Junior High School Ed.S. in Special Education (General) Ed.S. in Education Psych. Ed.S. in Education Super. Ed.S. in Social Sci. (Gen.)

EDUCATION (cont.)	Provisional	Discontinue
		Ed.S. in Physical Science
		Ed.S. in English
Fort Hays Kansas State College	M.S. in Educational Adm.	Ed.S. in School Psychology
	M.S. in Special Education	Ed.S. in English Consultant
	Ed.S. in Counseling & Guidance (Student Personnel)	Ed.S. in Secondary Educ.
		Ed.S. in Music Consultant
		Ed.S. in Art Consultant
	Ed.S. in Educational Adm.	Ed.S. in History Teaching
		Ed.S. in Secondary Teaching
GRADUATE ARTS AND SCIENCES		
University of Kansas	M.A. in Oriental Lang. & Lit.	M.A. in Astronomy
	M.A. in Classics and Classical Archaeology	
	M.S. in Physiology (KUMC)	
	M.S. in Pharmacy	
	M.S. in Speech and Drama	
	M.A. in East Asian Studies	
	M.A. in Slavic and Soviet Area Studies	
	M.A. in Latin American Studies	
	M.A. in Pathology	
	M.A. in Musicology	
	M.A. in Slavic Languages & Lit.	
	M.A. in Linguistics	
	M.A. in Religion	
	M.M. in Music Theory	
	Ph.D. in American Studies	
	Ph.D. in Music Theory	
	Ph.D. in Musicology	
	Ph.D. in Philosophy	
	D.M.A. in Music	
Kansas State University	M.S. in Physiology	M.S. in Anatomy
	M.S. in Parasitology	M.S. in Geochemistry
	M.S. in Surgery & Med.	M.S. in Agricultural Mech.
	M.S. in Geology	M.A. in Philosophy
	M.A. in Geography	M.A. in Music
	M.S. in Sociology	M.S. in Music
	M.A. in Spanish	Ph.D. in Geochemistry
	M.A. in Art	
	M.A. in French	
	M.A. in German	
	Ph.D. in History	
	Ph.D. in Physiology	
	Ph.D. in Parasitology	
	Ph.D. in Foods & Nutrition	

GRADUATE ARTS AND SCIENCES (cont.)	Provisional	Discontinue
Wichita State University	M.S. in Biology M.S. in Geology M.A. in Anthropology M.A. in Political Science M.A. in Sociology	M.A. in Philosophy M.A. in Mathematics
Kansas State Teachers College	M.A. in Art	
Kansas State College of Pittsburg	M.S. in Social Sciences	
Fort Hays Kansas State College	M.S. in Chemistry M.S. in Physics M.S. in Political Science M.S. in Spanish	

THE REVIEW PROCESS

COCAO's evaluation of academic programs at the Regents' institutions indicates the need for a continuing review process in the future to assure orderly progress and efficiency. The following principles and procedures are recommended for future utilization.

Continued Programs

Those programs placed in the category to be continued as currently authorized will be reviewed annually for adequate productivity. Those programs failing to meet the productivity criteria for continuation will be identified in the annual institutional report to the Board of Regents. Normally, COCAO will recommend to the Council of Presidents that such programs be placed on provisional status. Since cost data for programs being continued should not change significantly from year to year, the offering institution will provide such data in every third year's annual report to the Board of Regents. Each Regents' institution will continue to file with the Board office copies of all accreditation reports from accrediting agencies. Programs placed on probation or suspension by an accrediting agency will be identified in the annual report to the Board of Regents.

Programs on Provisional Status (Three-Year Period)

At the end of the first year on provisional status, institutions will file with COCAO for review and transmission to the Council of Presidents and the Board of Regents a report on each of their provisional programs. This report will include data on the number and residency status of students enrolled in the program and the projected degree and credit hour production for the next three years. It will also include the institution's appraisal of the social need for the program in Kansas and its relationship to the institution's mission. This report will identify the institution's decision to continue the program or to phase out the program. If the program is to be maintained, the report will list the additional resources being reallocated to expand and strengthen the program.

At the conclusion of the three-year provisional period, the institution will file with COCAO for review and transmission to the Council of Presidents and the Board of Regents a report on each of its provisional programs giving productivity figures, data related to the maintenance of quality (student admission data such as GPA, GRE scores, changes in degree requirements), and unit cost data. If productivity criteria have been met and if the quality of the program appears to have been maintained, removal from provisional status may be recommended. If production criteria have not been met or in COCAO's judgment the quality has not been maintained, costs are higher, and there is a duplicate program at another Regents' institution, a recommendation normally will be made that the program be phased out. Programs scheduled to be phased out may be resubmitted by the offering institution as new programs. They then will be evaluated in accordance with the new program procedure of the Board of Regents in the context of other new program requests from that institution. Reinstatement of a program which has been scheduled for phasing out will require approval of COCAO, the Council of Presidents, and Academic Committee, and the Board of Regents.

New Programs

All proposals for new programs reviewed by COCAO are also reviewed by the Council of Presidents, the Academic Committee of the Board, and the Board of Regents, and their general posture on the development of new programs over the next decade will be extremely conservative. Given the enrollment projections for a lower rate of growth, the probability of limited budgets, and the need to make every effort to bring about even greater efficiency in the system, the period ahead will be devoted primarily to improving the quality of programs already in operation, to the consolidation of the areas of growth already achieved, and to innovation through the use of new techniques and combination of programs.

RECOMMENDATIONS: 1) The University of Kansas should not extend its coverage of academic disciplines in the foreseeable future unless expansion clearly meets an existing need within the state.

2) Kansas State University should not enlarge the coverage of its academic programs other than to continue efforts already underway in rural development. No general doctoral programs in the humanities or social sciences should be planned in the foreseeable future. If additional work is to be offered in these areas it should be interdisciplinary, directly related to the rural development areas.

3) Wichita State University's thrust should be increasingly that of service to its metropolitan area with program development only in areas related to that role. No plans should be made for the development of traditional Ph.D. programs in areas where academic employment is the primary source of placement. Foreign Language, Religion, Instructional Media, Business Education, Industrial Education, Library Science, Astronomy, Geography, Archaeology, and History should not be expanded beyond present levels.

4) Kansas State Teachers College will continue its strong emphasis on teacher preparation and should become the institution primarily involved with the Education Specialist degree. It should concentrate its energies here and to the full development of the library science field where it has a unique role in the state. Programs beyond the bachelor's level should not be developed in Religion, Astronomy, Area Studies, Linguistics, Creative Writing, Philosophy, Meteorology, Geology, Journalism or Anthropology. (The latter may possibly be developed with an interdisciplinary emphasis.)

5) Kansas State College of Pittsburg should continue to serve its geographical area with a well-rounded undergraduate program and appropriate graduate work in Liberal Arts and Sciences, Education, and Business. It should maintain its unique role provided by the School of Technology and not add disciplines to its current scope of programs.

6) Fort Hays Kansas State College should continue to meet its unique geographic mission and improve its services through constant review of the programs presently being offered. Additional programs will be proposed only when they can be justified in terms of need and cost.

RELATED PROGRAMS AND ISSUES

Enrollments

Throughout the 1950's and until 1968, enrollments increased continuously at all Regents' institutions. During the three years prior to 1972, K.S.T.C., K.S.C. and F.H.K.S.C. have had a decrease of 398 in total undergraduate enrollment while 4,325 additional full time students elected to attend K.S.U., K.U. and W.S.U. As a result, the colleges were required to eliminate a number of unclassified and classified positions and make corresponding cuts in academic offerings as well as in other aspects of their operation. Concurrently, new positions were being supplied to K.S.U., K.U. and W.S.U. to meet their increased enrollments. Obviously, if the decline in enrollments in the colleges continues, the quality of their programs will be seriously affected and the state's resources will be inefficiently used.

The uncertainties inherent in such unstable conditions and the impact of continued cuts in staff are demoralizing and make academic planning for orderly program development extremely difficult. If no counteraction is taken, or if the colleges are unable to attract students to maintain their current enrollment, it is possible that facilities at these colleges might stand idle while K.S.U., K.U. and W.S.U. become overcrowded. The colleges will also face difficult problems in financing residence halls, health services, and other supporting facilities which involve long-range commitments.

RECOMMENDATIONS: 1) It is recommended that it be made public policy to maintain reasonable stability and balance in the enrollments of the Regents' institutions to minimize simultaneous shrinkage and expansion in similar programs in the several institutions.

2) It is recommended that a formal resolution be adopted by the Board of Regents declaring such a policy to be in the best interest of the state and directing its staff and the chief executive officers of the Regents' institutions to recommend specific actions through which the policy may be effectively implemented.

Course Offerings

There is a continuing need for the revision and updating of courses to respond to new knowledge and understanding, for the introduction of new courses as new areas of knowledge and social concern emerge, and for institutional effort to remove gaps in its programs for the general education of its students. As the institutions respond to the need for change, they must make realistic efforts to effect the additions required by an internal reallocation of resources. Consolidation or replacement of existing courses may make possible the introduction of required new courses without increasing the total number of offerings and the unit costs of instruction.

RECOMMENDATIONS: 1) Each of the Regents' institutions should review and reduce the number of courses and credits listed in its general catalog and report this reduction to COCAO by 1974.
2) Each of the Regents' institutions should reduce the number of courses and credits offered each semester and report its results to COCAO by 1974.

Faculty Retirement

Earlier retirement of faculty members is an issue that requires careful and immediate consideration. Experience has shown that faculty members retiring at age 70 have frequently had little opportunity to enjoy the rewards of their years of service. The efficiencies proposed in this report plus the potential enrollment decreases in the future may require a greater faculty reduction than would be provided by normal attrition. Lowering the retirement age of faculty appears to be a reasonable partial solution to this problem. Certain academic and economic benefits to the institutions would tend to accrue from earlier retirement. The degree to which this would be true, however, would be tempered by the financial obligations incurred by a program of earlier retirement.

RECOMMENDATIONS: 1) It is recommended that there be joint committee of COCAO and the Council of Presidents reviewing current faculty retirement policies. Appropriate involvement of faculty in these deliberations should be arranged.

Continuing Extension and Extension

In the light of changing conditions, extension programs as operated in the past may not be satisfactory for the future. Increasingly, people are supplementing their previous education with formal and informal instruction on a periodic and systematic basis to keep up to date with developments in their field. It therefore is in the interest of Kansas to provide systematic instruction near the working and living locations of its residents.

Furthermore, many find that they cannot fit into the rather rigid pattern of higher education. This is especially true for racial and ethnic minorities, women, the impoverished, and the physically or emotionally handicapped. These facts are made explicit in the studies by the Carnegie Foundation, the Educational Testing Service and federal agencies. Each stresses the need for greater flexibility through which higher educational opportunities are made available to all. Kansas must accept this challenge and make higher education more readily available throughout the state.

To do so means that early efforts must be directed toward the solution of some of the difficult problems now facing extension education. Immediate attention must be given to the need for a state-wide assessment of extension programs to determine clear-cut allocations and division of responsibility among the Regents' institutions based on the respective missions of the schools.

Differences in methods of financing on-campus and off-campus courses have sometimes led institutions to restrict off-campus offerings for credit in order to protect campus programs. Also institutions have limited the amount of extension credit which may be applied toward degree requirements. Both of these situations have reduced the effectiveness of extension programs. In addition, faculty members who teach extension courses receive minimal additional pay for overload assignments and directors of continuing education have no authority to correct existing inequities. Because of these conditions, extension course offerings have been unduly haphazard, sporadic and lacking in continuity.

RECOMMENDATIONS: 1) The Council of Continuing Education Deans and Directors should report directly to COCAO and be responsible for coordinating a state-wide system of off-campus and continuing education.

2) The half-time positions of the director and the associate director of Statewide Academic Extension should be consolidated into a single full-time position as an integral part of the office of the Boards of Regents. This person should a) act as executive officer for the Council of Continuing Education Deans and Directors, b) assess systematically the needs of the state for extension services, and c) coordinate the off-campus and continuing education offerings and operations of the six Regents' institutions, d) provide liaison functions with all other institutions in the state having continuing education programs.

3) To the greatest degree possible, the distinction between off-campus extension credit and on-campus resident credit should be eliminated when the same quality of instruction is offered in the two settings. Such courses should be staffed and financed on essentially the same basis as on-campus instruction and the same principles regarding reciprocity of credit among the Regents' institutions should apply.

4) Administrative and overhead costs for non-credit classes, conferences, etc., should be financed by the state, and the direct program costs of such activities should be financed by restricted fees.

5) Existing off-campus continuing education administrative centers

should be reviewed and, if needed, reorganized as Regents' centers rather than as centers for individual institutions. Such centers should be established or deleted as needed. The operation of such centers should be under the supervision of the Statewide Academic Extension Officer.

Computer Science and Data Processing

The coordination of data processing activities and the development of academic programs in computer science will require continued attention as statewide planning proceeds. The Committee consisting of computer center directors and the staff budget officer of the Board, established two years ago, has made significant progress in planning for the coordination of all computer-related activities. Several alternatives regarding a Regents' computation system for meeting academic and administrative computing requirements have been examined as to cost effectiveness and quality of service. The Committee suggests a system featuring commonality of format and programming for administrative needs, some stand-alone computing capability on each campus, and the eventual development of transmission links and interactive computing among the campuses. Progress is already being made in developing compatible software and some batch processing of data at one institution for all the Regents' institutions. These activities were initiated as part of COCAO's planning efforts.

The Committee has recommended upgrading of the equipment at K.S.T.C., K.S.C. and F.H.K.S.C. to the minimum level required for compatible operation with K.S.U., K.U. and W.S.U. Acquisition of new equipment on any campus will be reviewed by the Committee to ensure continued system-wide compatibility.

There is general agreement that expanded academic programs in computer science will be required in the future. Graduate level development of these programs should be limited. The impact of the emerging planning procedures is evident in the joint K.U.-K.S.U. Ph.D. level program in computer science initiated this year upon the recommendation of COCAO and the Council of Presidents following requests for separate programs on each campus.

Data processing and computer science are major expenditure areas in higher education and it is essential that their development proceed in a planned and coordinated way. The mechanism for the continuation of that planning exists and the institutions are committed to it.

RECOMMENDATIONS: 1) It is recommended that there be continued development of a partially distributed Regents' computer system with some stand-alone computing capability on each campus and with selective low and medium speed communication links between systems. Such a plan assumes the necessary upgrading of computer hardware at K.S.T.C., K.S.C. and F.H.K.S.C. and continued computer support.

Libraries

As system-wide academic planning continues, additional attention will need to be devoted to the matter of coordinating library policies and activities at the six institutions to maximize the availability to all institutions of the total library resources of the state. Important gains in system-wide utilization of

library resources have been made with the establishment of the teletype network and the courier service linking some of the institutional libraries. Additional attention needs to be given to the matter of coordinating acquisition policies at the six institutions to ensure maximum coverage of new materials as they become available with a minimum of unnecessary duplication. As differentiation of function among the institutions becomes better understood, it should become increasingly possible to differentiate institutional emphases on library acquisitions. The library directors are also studying the possibility of establishing a central depository for lesser-used, older library materials which would serve the entire state system and tend to free space in the libraries of all of the institutions. Efforts need also to be continued toward the establishment of compatible, if not common, catalogs at the six libraries.

The library directors should continue to meet periodically as the Council of Librarians to coordinate library policies and activities. They will report to COCAO, which will review and forward recommendations where appropriate to the Council of Presidents.

RECOMMENDATIONS: 1) The library directors should prepare recommendations relative to centralized storage, shared processing, and levels of collection by subject specialization at each institution.

2) The State Library of Kansas in cooperation with the Regents' institutions' libraries should seek designation as the "regional" depository for federal government publications for all other designated depository libraries in the State of Kansas.

3) Efforts should be initiated to reduce unwarranted duplication in journal subscriptions among the Regents' institutions.

4) Guidelines should be developed to control the growth of departmental libraries which develop at the expense of central library resources.

Student Personnel Services

Each of the Regents' institutions provides organized programs of student services. These programs meet many practical needs of students—financial assistance, health, housing, job placement. They are also concerned with the personal development of students and with helping students overcome handicaps to their development. Thus, they provide professional counseling services to help students plan their futures, mental health services to help students deal with minor emotional difficulties, educational remediation services to help students overcome educational skill handicaps, organized programs of activities to help students develop leadership, and recreational opportunities to enrich their experiences and broaden their development.

Because of their direct contact with students in all aspects of their extra-academic life, student personnel professionals have a major responsibility for interpreting student characteristics, needs and desires to the educational community and for designing programs and mechanisms which are responsive to such factors. It is largely from these efforts that policies are evolved regarding student rights, student behavior, and student participation in policy making.

Changes in student population, in educational policies and practices and in the financial resources of the institutions require constant revisions of programs and policies affecting students. The most pressing current needs are dealt with in the recommendations which follow:

RECOMMENDATIONS: 1) Increased resources should be made available for programs designed to assist disadvantaged students to take full advantage of higher educational opportunities in Regents' institutions.

2) Improved intramural and recreational facilities should be provided to permit more constructive use of free time, to aid health and physical development, and to facilitate academic achievement.

3) Continued efforts should be made to understand and consider student needs, opinions and psychological developments in all phases of educational planning, including facilities, curricula, courses and out-of-class educational experiences.

Research

In the judgment of the Council of Presidents, active participation by faculty members and students in research and other forms of productive scholarly activity does more than anything else to vitalize instruction at the college level. It keeps instructors in touch with current developments in their fields, enables students to gain realistic insights into the disciplines they are studying, and motivates and vitalizes the learning process. Research is recognized as a major function of K.U., K.S.U. and W.S.U. (though given far less financial support than desirable), but its status at K.S.T.C., K.S.C. and F.H.K.S.C. is not clearly defined. Some research and considerable creative activity directly related to academic disciplines are carried on by faculty members and advanced students at the three colleges, but direct budgetary support for these efforts is extremely limited. These institutions are and should continue to be primarily devoted to instruction with appropriate financial support clearly designated for that purpose. However, recognition of their limited role in research with adequate budgetary support would improve the quality of instruction at these institutions and strengthen the entire Regents' system.

RECOMMENDATIONS: 1) The relationship between instruction and research at K.S.T.C., K.S.C. and F.H.K.S.C. should be clarified and appropriate support should be provided for research and other forms of scholarly activity at all Regents' institutions.

2) COCAO should more fully study this problem during the coming year and make specific recommendations to the Council of Presidents and the Board of Regents.

ADDITIONAL GENERAL RECOMMENDATIONS

1) Increased state support should be given to scholarly endeavor sufficient to vitalize and undergird instruction at all six institutions. Substantial programs of pure and applied research should be carried on at

the three universities in advanced graduate and professional areas of special emphasis.

2) Methods of providing enrollment stability and balance should be explored at the six Regents' institutions in order to ensure the existing buildings and other resources are to be fully utilized. Policies affecting enrollments such as admissions requirements, fees, program offerings and recruitment practices should be modified periodically to keep enrollments within established limits.

3) The six Regents' institutions should coordinate academic policies, regulations, calendars, and programs to facilitate the transfer of students and optimum utilization of resources. The programs at the Regents' institutions should be articulated with those of the public community junior colleges and private colleges.

4) Expenditures for education should be regarded as a high yielding investment which creates income and social benefits for the state, for a state's level of industry and commerce is closely correlated with its level of expenditures for education.

5) Effective long-range planning and coordination must be a continuous process. It is essential that the communication processes and cooperative investigative efforts instituted in this study be continued as a regular feature of the Regents' system of higher education.

6) There should be further study of the feasibility of regional programs Supported cooperatively by several states.

APPENDIX

APPENDIX

BASIC DATA RELATED TO STATE-SUPPORTED HIGHER EDUCATION IN KANSAS

Any group charged with the responsibility for making studies and presenting plans and recommendations must rely heavily on valid information. Cooperation in the acquisition of educational data is essential to effective and efficient planning and coordination of higher education in Kansas. In order to apply the techniques of systems analysis, data of proportionate appropriate quality must be available. Obtaining such data, however, has proved to be a time consuming and expensive effort.

The Institutional Research Personnel, composed of representatives from each of the Regent institutions, working in conjunction with the Academic Officer of the Board of Regents, have been engaged in a massive data collection effort throughout most of the past year. The series of studies summarized in this section was initiated to provide data pertinent to academic planning and to facilitate the coordination process. Obtaining these data required the institutions to uniformly categorize and collect information in a variety of formats which were not previously available. This developmental work has been a significant by-product of the work of these groups. As a result, the Council has compiled data never before available in the State.

Ten areas were identified for in-depth examination by the Council of Chief Academic Officers. They were:

I. College and University Enrollments
II. Admission, Retention and Attrition
III. Faculty Activity Analysis
IV. College and University Programs
V. Equalizing Educational Opportunity
VI. Research
VII. Extension, Public Service and Continuing Education
VIII. Physical Facilities
IX. Student Life
X. College and University Libraries

As noted earlier, these data were heavily dependent upon the work of the Institutional Research Personnel. This group compiled the data pertinent to areas I through VI. Data in the remaining areas were collected by groups comprised of representatives from each of the Regent institutions working independently in conjunction with the Regents' Office in their special areas. Data related to areas VII through X were compiled, respectfully, by the Directors of Continuing Education, the Long-Range Physical Facilities Planning Committee, the Deans of Student Affairs, and the Librarians.

Detailed reports of the individual studies summarized in this section have been compiled separately and are available in limited quantities for viewing in

the office of the Board of Regents and in the office of the Academic Officer on each campus.

The succeeding pages contain one paragraph synopses of each study followed by longer abstracts of the full reports.

SYNOPSES

I. Enrollments

Since 1964, when W.S.U. came into the Regents' system, enrollment has increased by 38.3 percent at the six Regent institutions with a total equated full-time enrollment of 59,288 students in attendance during the fall semester of 1971. According to the most recent figures, out-of-state students comprise 17 percent of the total enrollment; about one-sixth of these were international students enrolled primarily at the graduate level. Since the fall of 1969 significant changes appear to be emerging in the enrollment trends. Recently, each of the three colleges has experienced a slight decline in enrollment. Each of the three universities has continued to experience an increase in enrollment, albeit, not as rapid as during the previous years.

II. Admission, Retention and Attrition

Kansas Statutes specify that any person completing a four-year course of study in a Kansas accredited high school shall be entitled to admission to the freshman class at the Regents' institutions. Non-resident freshman are required to have a "C" average or be in the upper one-half of their high school graduating classes. All institutions have an academic probation or non-retention policy which essentially requires a grade point average of 2.00 ("C") to avoid being placed on probation. An attrition rate of approximately 29 percent at the Regent institutions appears reasonably valid. Although 43 percent of the entering freshmen were not traceable within the Regents system after five years, nationwide studies indicate about one-third of these students eventually obtain degrees elsewhere.

III. Faculty Activity Analysis

A survey of all unclassified personnel was made at each of the six institutions in the fall semester of 1971. Because the results were intended to assist the planning effort of individual departments as well as institutional and system-wide planning, separate analyses were made for each unit at each institution. As a result, over 4,100 pages of tables were prepared and analyzed in the total report. This synopsis utilizes only the major summary data for the total institutions.

Faculty Characteristics. Over 85 percent of all full professors have attained doctoral degrees. They average over 19 years of experience in higher education and over 7 years of experience in other settings. On the average, they work about 58 hours per week. Compared to other ranks, they are more heavily involved in graduate instruction and administration; of their 58 working hours, an average of 12 were spent in undergraduate instruction.

Associate Professors, Assistant Professors, and Instructors are progressively less likely to have doctoral degrees, less experienced (particularly in higher

education), less involved in administration and graduate instruction, and more involved in undergraduate teaching. Their work week averaged about 56 hours.

Institutional Emphases. Work emphases at the six institutions differs in logical ways. K.U. and K.S.U. are the only institutions making substantial instructional efforts at the post-master's level. They also account for the bulk of the sponsored research effort. K.S.U.'s land grant commitment is demonstrated by a strong emphasis on professional service through its extension division. Over three-quarters of the total effort at W.S.U. and the three state colleges is devoted to instructional activities, with the major portion of this effort concentrated on undergraduate education. The smaller colleges commit relatively more effort to management tasks than do the three universities, while professional development, creative work, advising and counseling, and unsponsored research each constitute a relatively small share (3-7 percent) of the workload at all six institutions.

Instructional Costs. Credit hour costs are directly related to instructional level. Typically, junior-senior courses cost 25 percent more per credit hour than freshman-sophomore courses. Master's level credit hour costs average about 50 percent above those for the junior-senior level. And doctoral level costs average about twice as much as those at the master's level. Institutional differences are not large, though on the whole instructional costs are somewhat lower at the state colleges than at the three universities. Field of study is an important determinant of cost, with unit costs in some fields being 2 to 4 times higher than those in other fields.

IV. College and University Programs

All but two of the twenty-four conventional academic subdivisions of knowledge were represented in the total of 12,607 degrees awarded by Regents' institutions during fiscal year 1971. The exceptions were Military Science and Theology. Degrees were awarded in the following proportions: University of Kansas —29 percent; Kansas State University—22 percent; Wichita State University—13 percent; Kansas State Teachers College—15 percent; Kansas State College of Pittsburg—11 percent; and Fort Hays Kansas State College—10 percent. A review of student credit hours produced by institutions during this period reveals a similar distribution of percentages except for Wichita State University. There a larger number of part time students results in an increased percentage of student credit hour production.

V. Equalizing Educational Opportunity

The Regent institutions reported a total of forty-seven programs designed to offer some kind of special academic involvement to unique groups to assist them to attain maximum educational development. Such efforts appear to have grown markedly in the past five years. Most common among the types of programs offered are those which provide for special counseling, non-credit remedial work, or special assistance to international students. In contrast to the universities, the three colleges offer a comparatively limited number of programs. The adaptation of facilities to afford special assistance to the physically handicapped at Kansas State Teachers College is perhaps the most marked exception.

VI. Research

Only slight fluctuations occurred in the proportion of research funds received from Federal, State and Private sources during the period 1966-1970. Federal sources maintained a relatively stable contribution of 85 percent while funds from State and Private sources each approximated only 7.5 percent. During this period the University of Kansas and Kansas State University attracted by far the greatest financial support for research, together accounting for a combined total of 96 percent of the total dollars received by Regents' institutions. Access to financial support for research has been most readily available in four concentrated areas: biological, physical science, social sciences and engineering. In the immediate future studies concerned with the environment, health, social and behavioral sciences, and urban affairs—the peace, poverty, pollution and population issues—appear most likely to receive increased support.

VII. Extension, Public Service and Continuing Education

During the past five years, a much more rapid expansion has taken place in the course work offered to the public through continuing education than through on-campus programs. Between 1966-67 and 1970-71 the total number of credit offerings increased by 95 percent and total registrations increased by 126 percent. This growth is even more evident at the graduate level where during the same period the number of graduate classes increased by 217 percent and graduate registrations increased by 342 percent. A total of 41,319 continuing education activities was provided during 1970-71 with approximately 183,149 participants. Of this number, the more traditional continuing education activities of credit classes, non-credit classes and conferences of institutes accounted for a total of 104,374 registrations. Many other activities are coordinated through the continuing education offices.

VIII. Physical Facilities

Buildings at each of the six Regents' institutions were evaluated by a single, impartial authority on the basis of four criteria—exterior condition, interior condition, mechanical system condition, and conformance to safety requirements of the building code. On the basis of its total score on these components, each building was classified into one of the following categories: satisfactory, needs major remodeling, needs minor remodeling, or obsolete. A composite summary of the condition of all existing space located on these campuses revealed 68.6 percent to be satisfactory, 10.8 percent in need of minor remodeling, 9.5 percent in need of major remodeling and 11 percent obsolete and, hence, in need of replacement. The percentages portray only the condition of existing facilities and should not be interpreted to represent total space shortages or needs. A uniform process for determining space needs based upon common analysis of academic data is being developed.

IX. Student Life

Many campus services are available to complement the academic pursuits of students in the Regents' institutions. Common to all institutions are health services, veterans and dependents services, housing assistance, student unions,

food services, admissions, bookstores, financial aids, part-time employment and job placement. Other services available at most of the institutions are listed in the Appendix summary.

The student voice in policy making is substantial and is apparently increasing at the Regents' institutions. Policies and practices in the area of student rights have developed rapidly in the past decade and may be indicative of changing life styles yet to emerge. As a general policy, institutions state that any segment or group which will be affected by a decision will be represented sometime during the decision-making process. This normally improves the communication process, but requires great quantities of time and energy.

X. College and University Libraries

The library collections for the Regent institutions for 1970-71 compare favorably for the most part with the U.S. Office of Education averages for 1968-69, although they do not compare as well with recommended sizes of collections for graduate institutions. For public universities over 10,000, the U.S.O.E. reported an average of 55 volumes per student compared to 98 at the University of Kansas, 44.7 at Kansas State University and 37.5 at Wichita State University. For four year institutions with graduate programs and enrollments between 5,000 and 10,000, the average was 31 volumes per student compared to 40.8 at Kansas State Teachers College, 40.5 at Kansas State College of Pittsburg and 42.9 at Fort Hays Kansas State College. A comparison with recommended sizes of collections for particular kinds of graduate institutions reveals that none of the Regents' institutions ranks higher than 68 percent of compliance and one institution ranks as low as 45.6 percent. The growth of collections at the libraries has leveled off and in some cases dropped considerably during the past five years due largely to the increased per unit cost of library materials.

ABSTRACTS OF DATA

I. COLLEGE AND UNIVERSITY ENROLLMENTS

Since 1964, when Wichita State University came into the Regents' system, enrollment has jumped by 38.3 percent at the six Regent institutions. A total equated full-time enrollment of 42,879 students was in attendance at Regent institutions during the fall semester of 1964 in contrast to a total equated full-time enrollment of 59,288 for the fall semester of 1971. These data are derived from those shown in Table I.

Though only two years have elapsed since the fall of 1969, significant trend changes appear to be emerging in the enrollment figures which have been recorded since that time. Since the fall of 1969, each of the three Colleges has experienced a slight decline in total enrollment. By contrast, each of the three Universities has continued to experience an increase in enrollment, albeit, not as rapid as during the previous years. Kansas State University appears, as yet, to have been least affected by the trend toward slower growth. Its enrollment has increased by a substantial 1,718 since 1969.

An analysis of enrollments by student classifications reveals that for the

TABLE I

Equated Full Time-Enrollment

Fall Semester

Fall	University of Kansas	Kansas State University	Wichita State University	K.S.T.C. Emporia	Pittsburg K.S.C.	Fort Hays K.S.C.
1964	12,178	9,703	6,648	5,216	4,449	3,685
1965	13,384	10,519	7,749	6,007	5,117	4,410
1966	14,697	11,231	8,284	6,213	5,441	4,591
1967	15,833	11,479	8,544	6,430	5,529	4,740
1968	16,616	12,683	8,753	6,577	5,654	5,078
1969	17,813	12,943	9,195	6,701	5,662	5,181
1970	17,798	13,440	9,217	6,508	5,471	5,130
1971	18,051	14,661	9,665	6,530	5,374	5,007

five year period, 1966—1970, while enrollment was increasing at the six Regent institutions, certain new trends in class sizes were emerging. Freshmen and sophomore classes during this period were becoming proportionately smaller while junior and senior classes were becoming proportionately larger. Apparently, larger numbers of freshmen and sophomores were choosing to attend non-Regent institutions for some portion of their first two years of college during this period. This trend is most obvious at the University of Kansas where the freshman class is now the smallest, with each succeeding class being slightly larger through the senior year.

Out-of-State Students

Out-of-state students comprised 17 percent of the total enrollment at the six Regent institutions in 1970 ranging from a high of 30 percent at the University of Kansas to a low of 4 percent at Fort Hays Kansas State College. As one might expect, the most populous states and the states contiguous to Kansas account for the majority of Kansas' non-resident students. Approximately half of the out-of-state students came from Missouri. Only slight fluctuations have occurred in Kansas' out-of-state enrollment during the 1966—1970 period with the overall percentage of out-of-state students remaining relatively stable at approximately 17 percent.

TABLE II

1970 Head Count of Out-of-State Students and Percent of Total Head Count Represented

Institution	1970 Head Count	Percent
K.U.	5,418	33%
K.S.U.	1,915	14%
W.S.U.	816	7%
K.S.T.C.	721	10%
K.S.C.	774	14%
F.H.K.S.C.	223	4%
TOTAL	10,391	17%

International Students

International students represent approximately 4 percent of the total enrollment at the University of Kansas and Kansas State University and approximately 1 percent at the other four institutions. International students are predominantly enrolled at the graduate level where they comprise approximately 13 percent of the graduate enrollees at the University of Kansas and 18 percent at Kansas State University. Other institutions reported only 5 percent or less of their graduate students were from foreign countries.

Minority Students

Statistics on the numbers of minority students enrolled at the Regent institutions have not been collected prior to this study so historical data are not available. For the fall of 1970, however, minority student enrollee percentages were found to range from a high of 5.8 percent at the University of Kansas and Wichita State University to a low of 1.9 percent at Kansas State University. Blacks comprised the largest group represented within these percentages. Table III is based on a self-report by students and shows the percentage of minority students enrolled for the fall of 1970.

TABLE III

Percentage of Minority Students, Fall 1970

	Blacks	Am. Indian	Oriental Amer.	Span. Amer.	Total
K.U.	2.5%	1.3%	1.3%	0.7%	5.8%
K.S.U.	1.1%	0.0%	0.4%	0.3%	1.9%
W.S.U.	4.1%	0.3%	0.4%	1.0%	5.8%
K.S.T.C.	3.4%	0.0%	0.5%	0.7%	4.6%
K.S.C.	2.7%	0.4%	0.2%	0.4%	3.7%
F.H.K.S.C.	0.4%	0.6%	0.7%	0.5%	2.1%

Age of Students

Evidently, little research had been done on the age of students enrolled in Regent institutions. However, by grouping the age of students into three brackets—18-22 year olds; 23-30 year olds; and 31+ year olds—certain conclusions were apparent. More older students were enrolled during the period 1966-1970 than in the immediately preceding years. The percentage of 23-30 year olds increased significantly during this period. Increased benefits and participation in the G.I. Bill, greater unemployment, and a tighter job market may all have been factors in this trend.

Enrollment Projection

What enrollment trends should Regent institutions anticipate during the 70's? Regent institutions have annually been requested to submit ten-year projections of enrollments for planning purposes. One of the problems currently faced by enrollment predictors in Kansas is that past enrollment trends appear to be changing; i.e., should enrollment patterns evidenced during the past two years be interpreted as an anomaly or a new trend?

Obviously, many factors in a variety of combinations can operate in the future to affect enrollment. Apart from general economic conditions, a number of possible factors which may operate to *limit* enrollments in the future might be: a decrease in out-of-state enrollments; higher tuition charges; selective admission policies; changes in the ratio of students attending Regent, private, or two-year institutions; establishment of institutional enrollment maximums. It is entirely possible that other factors may operate to *increase* enrollments; such as, increased financial aid to students, including expanded "GI" opportunities; increased demand for college trained personnel; increased ratios of state financial support; increased percentages of high school seniors and adults enrolling in college; increased numbers of junior college graduates attending four-year institutions.

The Master Planning Commission has published projected twelfth grade enrollments for the State of Kansas through the year 1980-81*. Its figures project a steady increase in the number of high school seniors until the year 1976-77 after which it projects a gradual but steady decline in numbers through 1980-81.

The Kansas Higher Education Facilities Commission's Enrollment Predictions for Colleges and Universities in the State of Kansas, Fall Semesters 1968-1969 through 1977-1978 contains a detailed explanation of the projection techniques used by that group in arriving at enrollment projections for all institutions. Separate methods of projection provide high and low estimates of enrollments for each institution.

Utilizing these mathematically derived projections, Regent institutions have annually been requested to submit ten-year projections of enrollments based upon their own analysis and knowledge of internal institutional conditions which may have an impact upon enrollment. Institutional enrollment projections are shown in Table IV.

TABLE IV

Head Count Enrollment Projections

Yr.	University of Kansas	Kansas State University	Wichita State University	K.S.T.C. Emporia	K.S.C. Pittsburg	Fort Hays K.S.C.
1972	18,546	15,158	13,150	6,506	5,196	4,838
1973	18,666	15,400	13,500	6,100	5,198	4,800
1974	19,000	15,860	13,700	5,850	5,145	4,558
1975	19,500	16,050	13,850	5,875	5,176	4,415
1976	19,700	16,100	14,000	6,000	5,085	4,293
1977	20,000	16,150	14,100	6,150	5,054	4,247
1978	20,000	16,200	14,200	6,100	4,980	4,243
1979	20,000	16,250	14,300	6,075	4,971	4,192
1980	20,000	16,150	14,400	6,000	4,862	4,133

Only slightly different perspectives are reflected in the projections of the institutions from that reflected in the projections of the State Education Commission. For the most part the difference in perspective appears to be one of

* Master Planning Commission. Planning Report No. 1, *Projection: Grade Twelve Enrollments in Kansas Public and Private Schools, 1970-71 to 1986-87*, December 1970, P. 10.

degrees rather than direction. The three universities predict a slow but steady growth throughout the decade while the Commission's figures project a less rapid growth and an eventual decline in enrollment at *all* institutions after 1978. Meanwhile, the three colleges, largely in conformance with the Commission's figures, project a generally stable enrollment or decline at each institution for the remainder of the decade.

II. ADMISSION, RETENTION AND ATTRITION

Admission practices and retention patterns for the Regent institutions were researched as part of the data gathering process in the development of the academic master plan. This section summarizes current admission policies at Regent institutions, analyzes retention practices, and researches attrition rates at the Regent institutions for the period 1966-1970.

ADMISSION

Freshmen

To a certain degree, Regent institutions are governed by basic policy of the Kansas Statutes regarding admission policies. Kansas Statutes (K.S.A. 72-116) specify that any person completing a four-year course of study in a Kansas accredited high school shall be entitled to admission to the freshman class at the Regent institutions.

In addition to graduation from high school or scoring appropriately on the General Educational Development tests, all institutions further request entering resident freshmen to submit an American College Test Score and a record of physical examination. Non-resident freshmen are required by all institutions to have a "C" average or be in the upper one-half of their high school graduating classes.

Transfer Students

As a general rule, all institutions require a minimum grade point average of "C" (2.00) for transfer students. Infrequent exceptions may be made to this rule —most frequently if the student has completed less than 24 semester hours of college work. An unlimited number of transfer hours will generally be accepted by Regent institutions with the further stipulation that a minimum of thirty credit hours must be taken from the institution awarding the degree and that at least sixty hours of credit must have been earned at a four-year institution.

Graduate Students

Regent institutions require a minimum grade point average of 2.5 ("C+") at the undergraduate level for admission into the Graduate I (Masters) level degree program. Graduate credit which can be transferred at the Graduate I level varies among Regent institutions, but ranges from 6 to 10 hours. At the Graduate II level (Doctorate) the minimum grade point average for admission is 3.0 ("B") in previous graduate work. All Regent institutions require an official transcript of all graduate work taken previously and most require a recommendation from an

official of the college where the graduate degree was obtained, a minimum score on an entrance examination, or minimum experience criteria.

Additional requirements exist for individual graduate schools within the colleges and universities, but are not reported in this summary.

RETENTION

Undergraduate Students

All Regent institutions have an academic probation or non-retention policy which is based on a minimum cumulative grade point average. Essentially, each of the institutions requires a grade point average of 2.00 ("C") to avoid being placed on probation. Lower grade point averages are allowed for underclassmen at some of the institutions. Student conduct and failure to meet financial obligations are other reasons for student probation or dismissal at each of the institutions.

Graduate Students

To remain in good standing at the graduate level, a student must maintain a 3.00 ("B") minimum grade point average. Comparable requirements to those for the undergraduate students are applicable with the substitution of 3.00 as the minimum benchmark grade point average.

ATTRITION

A statistical sample of freshmen was drawn from the 1966 freshman class at each of the institutions in order to determine attrition rates at the Regent institutions. Students were identified according to whether they had graduated after four years, had graduated after five years, were still in attendance, had transferred to another Regent institution, or were no longer enrolled at a Regent institution.

The study revealed that 57 percent of the entering freshmen in 1966 had either graduated, or were still in attendance at one of the Regent institutions after five years. The remaining 43 percent were not traceable within the Regents' system of higher education. All of these, however, should not be considered "drop-outs." A number of these can be assumed to have transferred to private colleges, or out-of-state schools where no method was available to trace them. Earlier nationwide studies have indicated that about one-third of these students eventually obtain degrees elsewhere. If so, an attrition rate of approximately 29% appears reasonably valid. These statistics are shown on Table I.

An analysis of those students represented in the attrition percentage reveals that the greatest incidence of attrition occurs in the first few semesters of college. In the main, it appears that if a student returns for his third year of college, he will graduate. It is perhaps not surprising to discover that in observing variables of age, test scores, and grade point averages that the major contributing factor correlated with attrition is the grade point average. Nearly half of the students who comprise the attrition figure were on probation prior to leaving college. The age variable yielded no appreciable difference. Test scores revealed only slightly lower scores for those who were no longer in attendance.

TABLE I

Student Retention and Attrition at Regent Institutions
1966-1971

For every 10 Freshmen who entered Regent Institutions	□□□□□□□□□□
2.0 Have graduated after 4 yrs.	□□
3.5 Have graduated after 5 yrs.	□□□[
0.7 Are still in attendance at initial institution	]
1.5 Have transferred to another Regent institution	□[
4.3 Are no longer enrolled at Regent institutions	□□□□[

III. FACULTY ACTIVITY ANALYSIS

Institutions of higher education are increasingly being called upon to account for the stewardship of their funds, not only in terms of their amounts and allocation, but also the benefits gained therefrom. From time to time, questions are raised about the characteristics, duties and workload of faculty. Legislators wish to know what the public is getting for its tax dollar. Limited resources, rising costs, increasing numbers of students and the necessity of improving quality likewise present the college administrator with a difficult array of questions.

The most time consuming and painstaking area of research conducted by the Institutional Research Committee has been that devoted to uniformly analyzing and prorating costs of faculty activity at the six state colleges and universities in an attempt to provide data in response to some of these questions. By far, the largest amount of quantitative data has been generated by research efforts in this area. This summary reports data from only four portions of the report and by institutional level only. Comparable data were obtained at the school and department level within each of the institutions in these and other related areas. Consequently, this summary must of necessity be the least inclusive of total data generated of any of the reports included in the Appendix.

Procedures

A survey of all non-classified personnel on the campuses of the Regent institutions was conducted in the fall of 1971 under a uniform set of definitions utilizing a common instrument mutually developed by representatives of the six state institutions. The forms were distributed through departmental offices on each campus with an explanatory letter from the Vice President of Academic Affairs and were returned to the departmental offices for review and signature by the head of the department. Since a number of forms indicated revisions after review by the department head, there is reason to believe that this procedure reduced the probability that the report seriously under- or over-stated a faculty member's involvement.

All unclassified personnel were included in the survey. In addition to regular faculty, this includes unclassified personnel in the Extension Divisions, graduate research assistants, central administrative personnel, and non-instructional unclassified positions; e.g., counseling and student personnel services, comptroller's office, library, information, admission and records, and educational resources offices. The percentage of time devoted to particular activities shown in Table II of this summary would no doubt be altered considerably by the exclusion of some of these groups from the analysis. They were included, however, in order to improve our estimate of total instructional salary figures. A near 100 percent return of the survey on each campus makes the data the most reliable yet available.

In addition to demographic data, the survey requested respondents to indicate the average number of hours per week devoted to thirteen various activity categories. Categories listed were: direct instruction, assisting instruction, sponsored research, unsponsored research, assisting in research, administration, advising and counseling, professional development, creative work, professional service, departmental governance, college and university governance, and other.

Four levels of instruction were identified so that costs of instruction could be identified by level of course. Levels were identified as: 1) undergraduate lower division—courses primarily for freshmen and sophomores, (2) undergraduate upper division—courses primarily for juniors and seniors, 3) Graduate I—courses for students with less than 30 graduate credits and professional school credit, 4) Graduate II—courses for students who have completed more than 30 hours of graduate work, primarily specialist and doctoral level work.

For each of the four instructional levels, total student credit hours were computed for each department. These were converted to percentages of the total departmental instructional effort. Salary costs were computed for each activity in each department by distributing official monthly salary figures in accordance with the amount of effort devoted to that activity by each member of the department. Cost per student credit hour was obtained by dividing total salary costs for a given level of instruction by the total number of student credit hours produced. Costs associated with non-instructional activities (administration, counseling, unsponsored research, professional development, etc.) were "charged" against each level of instruction in proportion to its credit hour share of the total instructional load. While other methods of allocating costs of non-instructional personnel to credit hour costs might be used, i.e. prorating costs in proportion to salary or EFT at each level, arguments for the validity of one method over another are inconclusive. Salary costs and EFT positions associated with sponsored research, assisting research and professional services were excluded from Tables IV and VI since these are typically funded from other (non-instructional) sources.

Findings

CHARACTERISTICS OF CAMPUS PERSONNEL

Table I portrays information pertaining to formal education, salary, and work experience of unclassified personnel at each of the institutions. Data are shown by academic rank and reveal a consistent pattern at each of the institutions.

TABLE I

Description of Unclassified Personnel at Regents' Institutions

Characteristic	Rank	KU	KSU	WSU	KSTC	KSC	FHKSC
Percent with Doctorate	Professor	88	80	85	91	89	78
	Assoc Professor	83	73	85	49	48	37
	Asst Professor	69	51	41	30	24	32
	Instructor	5	3	1	0	0	0
	All Others	8	5	2	4	0	3
Average Semester Salary per EFT	Professor	8,514	8,121	8,366	6,846	6,553	6,795
	Assoc Professor	6,508	6,505	6,532	5,538	5,118	5,601
	Asst Professor	5,484	5,428	5,376	4,915	4,500	4,932
	Instructor	3,784	3,239	3,974	3,940	3,564	4,570
	All Others	2,525	1,963	1,583	2,377	2,121	2,665
Years Work Experience in Higher Education	Professor	19.5	21.3	17.5	19.8	18.9	19.7
	Assoc Professor	9.2	12.6	10.5	12.4	9.7	14.8
	Asst Professor	4.4	8.4	6.3	6.4	6.3	5.7
	Instructor	4.2	6.6	2.3	2.4	5.0	2.9
	All Others	2.1	1.7	1.6	0.9	1.9	1.3
Years Professional Work Experience other than Higher Education	Professor	4.4	6.4	7.0	8.5	9.5	7.3
	Assoc Professor	4.4	6.0	6.6	10.3	9.4	9.9
	Asst Professor	3.3	4.9	6.3	8.1	10.2	6.6
	Instructor	6.4	4.0	4.5	4.2	7.1	6.2
	All Others	2.6	2.8	4.9	3.4	3.2	3.4

Although there were some inter-institutional differences, without exception professors were found to have more formal education, were paid higher salaries, and have had significantly more experience in higher education than those of lower ranks. In descending order, this pattern held true for those with the rank of Associate Professor, Assistant Professor and Instructor.

ACTIVITY PROFILE BY INSTITUTIONS

Table II displays the percent of time devoted to the various activities by unclassified personnel at each of the institutions. Certain similarities of effort are obvious when one views this portrait of the "typical" unclassified employee. Of course, the typical member is mythical. Very few faculty members or other unclassified employees are engaged in all of the activities surveyed. The variety of activities which constitute the professional workload at Regents' institutions is underscored in this table.

From Table II it can be observed that approximately three-fourths of the time of unclassified personnel at a majority of the State institutions is directly

TABLE II

Percent of Time Devoted to Activities at Regents' Institutions

Activity	KU	KSU	WSU	KSTC	KSC	FHKSC
INSTRUCTIONAL						
I. Classroom						
a. Undergraduate						
1. Lower	17.5	15.7	23.6	24.7	27.7	26.2
2. Upper	12.5	5.9	19.3	15.2	20.2	24.5
b. Graduate						
1. Graduate I	6.5	8.2	5.9	9.8	11.0	6.2
2. Graduate II	5.7	4.4	0.1	1.4	0.5	0.4
II. Non-Classroom						
a. Creative Activity	2.9	2.7	3.8	2.0	2.3	2.7
b. Unsponsored Research	5.5	4.5	6.2	3.0	2.4	3.0
c. Professional Development	5.5	5.7	6.6	6.6	6.3	6.6
d. Advising-Counseling	4.0	4.3	5.7	7.7	6.3	6.1
e. Other	3.5	2.5	3.4	6.7	3.6	4.1
TOTAL INSTRUCTIONAL ACTIVITY	(63.6)	(53.9)	(74.6)	(77.1)	(80.3)	(79.8)
NON-INSTRUCTIONAL						
I. Research	(20.9)	(19.8)	(7.2)	(2.2)	(.9)	(2.3)
a. Sponsored	11.1	12.5	3.4	1.1	.4	.5
b. Assisting	9.8	7.3	3.8	1.1	.5	1.8
II. Professional Services	(2.8)	(14.0)	(3.4)	(2.6)	(3.3)	(2.8)
III. Management Tasks	(12.7)	(12.2)	(14.8)	(18.4)	(15.4)	(15.1)
a. Administration	10.1	10.0	11.1	13.6	12.7	12.3
b. Faculty Governance	2.6	2.2	3.7	4.8	2.7	2.8

related to instructional activity. This figure is considerably lower than it would have been if non-instructional personnel (administrators, sponsored researchers, student personnel specialists, etc.) had been excluded from this study. The precise effect which exclusion of these personnel would have had on the ratios depicted in Table II cannot be accurately stated. However, a significant decrease in the professional service ratio at Kansas State University would no doubt have resulted. It also seems likely that sponsored research, management, and perhaps counseling would all show modest decreases over the percentages depicted.

A closer analysis of the data in Table II reveals distinct institutional emphases which reflect the missions of the six institutions. A concentration on instructional activity at the undergraduate level was apparent at the three colleges. Major programs at the doctoral level were observed at the University of Kansas and at Kansas State University. The largest specialist program was shown to be at Kansas State Teachers College. Master's degree work appears to be fairly evenly distributed among the six institutions.

The degree of involvement in research at the two universities and the extent to which these institutions have been able to attract non-state funds to the institutions for this purpose is reflected in their comparatively large percentages of time devoted to sponsored or assisting research activities. The high percent of time devoted to professional services at Kansas State University reflects its sizeable extension staff, including 105 county agents; this "service" commitment is a cornerstone of the mission of land-grant institutions.

In areas where one might expect percentages to be similar, i.e. professional development, such was in fact the case. Percentages of time devoted to management activities were also fairly similar and do not generally appear to be excessive. They do suggest that, in this area, there may be a modest "economy of scale" effect—the larger institutions were able to devote proportionately less of their time to the management process.

ACTIVITY PROFILE BY ACADEMIC RANK

From Table III it is possible to obtain a general picture of the activity emphases which characterize faculty members at each rank.

Data shown revealed a consistent mosaic of effort for persons of the same rank at each of the institutions. Almost without exception, Professors put in a longer work week and devoted a significantly greater portion of their time to management tasks than their cohorts at other ranks. Typically a greater amount of their time was invested in graduate level instruction with significant portions of time devoted to creative and educational contributions. In contrast, Instructors did very little graduate teaching and relatively little of their time was consumed by management tasks. The pattern of activity for Assistant and Associate Professors blended between these extremes with significant portions of their time being devoted to creative and educational contributions.

The combined average number of hours per week reported for all duties by faculty members ranged from 53.4 to 59.9 with the median being 56.1 hours per week. These figures confirm the results of various national surveys. Though they

TABLE III

Average Hours Per Week Spent on Various Activities by Academic Rank

RANK AND ACTIVITY	KU	KSU	WSU	KSTC	KSC	FHKSC
Professor						
Undergraduate Instruction	12.1	7.6	16.6	14.3	17.5	21.4
Graduate Instruction	13.2	11.2	6.2	8.2	9.9	6.4
Creative Contributions	16.9	14.5	13.6	8.3	5.6	8.5
Educational Contributions	4.9	8.1	6.3	7.4	7.1	7.7
Management Tasks	10.9	13.0	16.3	21.0	13.1	19.3
TOTAL	58.0	54.4	59.0	59.2	53.2	63.3
Associate Professor						
Undergraduate	14.3	9.0	21.9	22.9	23.4	30.7
Graduate Instruction	13.8	12.7	6.2	7.3	9.0	5.2
Creative Contributions	16.7	16.1	14.4	7.7	9.0	7.2
Educational Contributions	4.9	10.5	6.1	6.3	10.0	7.8
Management Tasks	7.1	6.2	9.4	10.2	8.2	7.6
TOTAL	56.8	54.5	58.0	54.4	59.6	58.4
Assistant Professor						
Undergraduate Instruction	19.1	12.5	25.1	21.8	29.9	31.9
Graduate Instruction	11.3	8.4	3.6	7.9	6.0	4.6
Creative Contributions	17.4	17.0	12.9	8.3	7.9	10.0
Educational Contributions	4.1	10.4	7.6	10.6	8.1	6.4
Management Tasks	4.8	5.4	6.9	6.9	5.4	6.4
TOTAL	56.7	53.7	56.2	55.5	57.3	59.2
Instructor						
Undergraduate Instruction	19.8	9.2	28.2	24.9	32.8	36.6
Graduate Instruction	2.3	2.8	0.4	2.0	1.8	1.2
Creative Contributions	11.6	8.1	7.7	5.7	5.1	7.8
Educational Contributions	11.6	24.8	10.5	12.4	5.0	9.5
Management Tasks	4.9	5.9	4.2	11.3	7.1	3.9
TOTAL	50.2	50.8	51.0	56.3	51.8	58.9
Total Average Weekly Hours (All Ranks)	55.4	53.4	56.0	56.3	55.5	59.9

contrast sharply with the concept of a 40-hour work week, they coincide with earlier surveys of campus personnel at Kansas State University and Wichita State University and dramatize the differentiation between professional educator-scholars and workers in other fields.

Program Costs

Table IV compares average instructional costs by four levels of instruction at each of the six Regent institutions. Cost figures shown at the Graduate II level in this table reflect doctoral level work at the three universities and specialist level work at the three colleges.

It has been assumed that the average cost of instruction increases as the level increases. This assumption was confirmed by the data shown in Table IV. The least

TABLE IV

Salary Costs* Per Student Credit Hour by Levels and Percent of Total Credit Hours for All Courses by Institution

Level	KU		KSU		WSU		KSTC		KSC		FHKSC	
	$	%	$	%	$	%	$	%	$	%	$	%
UG-LD	20.65	(51.8)	19.45	(63.7)	17.00	(68.1)	16.87	(58.1)	14.65	(58.6)	15.61	(55.9)
UG-UD	26.70	(33.3)	25.85	(19.2)	28.55	(27.6)	19.92	(29.6)	18.55	(31.8)	18.46	(39.2)
Grad I	36.16	(11.4)	37.2[illegible]	[illegible])	50.49	(4.3)	28.39	(10.8)	28.51	(9.6)	29.73	(4.7)
Grad II	87.27	(3.3)	69.25	(3.5)	194.08	(0.02)	28.67	(1.5)	74.65	(0.1)	41.01	(0.2)
Total	26.75		24.84		21.66		19.20		17.27		17.45	

* Non-instructional personnel costs prorated to levels in proportion to student credit hours at each level. Excludes EFT and Salary costs for Organized Research, Assisting Research, and Professional Service.

costly instruction was at the freshman-sophomore level (UG-LD), while post-master's (Grad II) was most expensive.

Freshman and sophomore courses are usually of an introductory or survey nature. They provide much of the general education background expected of all college graduates and serves as foundation for later professional specialization. As such, they attract large numbers of students and many of them lend themselves well to mass educational techniques. Consequently, the number of student credit hours "produced" by instructors of these courses can be expected to be high. See Table VI. This, together with the fact that more advanced instruction requires faculty members who command above average salaries, results in lower costs for freshman-sophomore courses. As the level of instruction increases to junior-senior, Graduate I and Graduate II, the factors mentioned above operate to reduce class size and increase cost.

Although these average cost generalizations are valid, wide variations occurred among subject fields. Computer print-outs of unit teaching costs by subject

TABLE V

Salary Costs* Per Student Credit Hour by Levels for Selected Fields of Study

	Level	KU	KSU	WSU	KSTC	KSC	FHKSC
Selected Social Sciences	UG-LD	9.97	9.77	8.99	8.98	7.74	7.80
	UG-UD	19.92	10.15	20.65	12.37	11.43	14.34
	Grad I	41.79	22.51	59.95	18.02	22.65	16.75
	Grad II	66.33	62.45	..	25.07	..	..
	Total	17.18	12.63	12.74	11.27	10.47	10.31
Engineering	UG-LD	43.49	49.85	49.46	..	..	..
	UG-UD	45.68	52.44	51.76	..	..	..
	Grad I	78.17	76.29	161.94	..	..	..
	Grad II	128.20	122.41	188.38	..	..	..
	Total	53.92	60.69	55.47	..	..	..

* Non-instructional personnel costs prorated to levels in proportion to student credit hours at each level. Excludes Sponsored Research, Assisting Research.

TABLE VI

Student Credit Hours Per EFT Unclassified Individual*

Level	KU	KSU	WSU	KSTC	KSC	FHKSC
UG-LD	178.12	223.20	245.79	264.27	284.92	301.19
UG-UD	183.74	198.00	183.03	235.07	244.78	252.19
GRAD I	150.80	140.48	114.36	165.15	158.26	151.50
GRAD II	71.52	82.64	35.21	165.19	39.47	125.60
TOTAL	167.69	191.82	214.66	238.04	251.13	267.64

* Non-instructional personnel costs prorated to levels in proportion to student credit hours at each level. Excludes Sponsored Research, Assisting Research, and Professional Service.

areas were prepared for the six individual campuses. Two contrasting programs are shown in Table V in order to illustrate the significant variations which occurred in unit costs. Generally, it can be observed that Graduate I level work in the Social Sciences was offered at a lower unit cost per credit hour than freshman-sophomore work in Engineering. The fact that it may cost less to instruct graduate students in social science or history than to provide instruction for freshmen and sophomores in technical fields, however, should not lead one to conclude that one task should have priority over the other.

Costs of instruction are affected by numerous factors working in combination. Primary among those factors appear to be: size of classes (student demand), level of instruction, and faculty salaries. Other factors which probably contribute to cost differentials include volume of teaching activity, method of instruction, availability of adequate physical facilities, expenditures for supplies and equipment, and secretarial assistance.

IV. COLLEGE AND UNIVERSITY PROGRAMS

Each of the Regent institutions reported student credit hour production for the fall semester 1970 and summer semester 1970 plus degree production for the period July 1, 1970, to June 30, 1971, by Higher Education General Information Survey (HEGIS) discipline, specialty and by level of course. The HEGIS discipline and specialty are equivalent to the program category and program subcategory in the Program Classification Structure of the National Center for Higher Education Management Systems at WICHE. This summary is restricted to reporting data by HEGIS discipline only. More detailed information concerning credit hour and degree production by HEGIS specialties is contained in the full report.

This effort was the first attempt by the institutions to allocate credit hour data to the HEGIS taxonomy at the specialty level. Although major problems were discussed by the institutional research committee, no doubt some differences in interpretation still resulted. Furthermore, each institution was required to identify a discipline and specialty for each class taught, though disciplines and specialties are not always synonymous with traditional college, division, and departmental units. Consequently, the credit hour and degree production listed here may differ from that in a report following administrative unit categorization and

TABLE I

Summary: Student Credit Hours by HEGIS Discipline, Fall and Summer, FY 71, Percent of Total

DISCIPLINE	KU		KSU		WSU		KSTC		KSC		FHKSC	
	Fall %	Sum %	Fall %	Sum %	Fall %	Sum %	Fall %	Sum %	Fall %	Sum %	Fall %	Sum %
0100 Agri. & Natural Res.	1		89	98							10	2
0200 Arch. & Environ Des.	32	19	68	81								
0300 Area Studies	65	40	6	1	29	59						
0400 Bio. Sciences	29	27	30	20	10	8	11	20	10	18	10	8
0500 Bus. & Mgmt.	17	15	14	13	22	33	20	17	11	10	16	12
0600 Communications	60	43	26	19	7	14			2	15	4	10
0700 Computer & Info Sci.	24	34	28	39	10	7	19	8	12	9	7	3
0800 Education	19	14	18	10	15	19	19	27	15	17	14	12
0900 Engineering	31	32	34	34	16	12			19*	22*		
1000 Fine & Applied Arts	31	21	14	8	18	22	14	20	8	13	14	15
1100 Foreign Languages	56	40	12	10	16	24	7	13	4	5	5	8
1200 Health Professions	22	31	50	16	13	28					15	25
1300 Home Economics			81	78	1		8	10	5		5	12
1400 Law	100	100										
1500 Letters	35	27	20	13	18	26	12	15	7	9	7	10
1600 Library Science	1				1	5	85	83	4	7	8	5
1700 Mathematics	30	18	26	22	21	29	8	9	9	14	5	8
1800 Military Science	27		39		13				21			
1900 Physical Science	30	18	33	26	15	10	7	24	6	13	9	9
2000 Psychology	33	27	16	13	18	18	14	24	10	10	9	8
2100 Public Aff. & Serv.	64	68			19	16			17	15		
2200 Social Science	33	23	20	14	21	28	10	15	9	11	8	9
2300 Theology												
4900 Interdis. Studies	95	99	2	1							3	
Institution's % of TOTAL	31	22	24	15	16	21	11	19	9	12	9	10
Institution's % of Sum. 70, Fall 70, Spr. 71	29		22		17		13		9		9	

* School of Technology

reasonable caution should be exercised when comparing institutions. Education (0800) presented special problems concerning whether particular courses and degrees should be assigned there or to substantive disciplines such as mathematics, art or letters. Nevertheless, a reliable degree of accuracy was achieved through the use of the HEGIS taxonomy and it has since been adopted as a guide for the establishment of future academic reporting procedures for Regent institutions.

Student Credit Hour

A summary of each institution's share of the total student credit hour for the fall semester 1970 and summer 1970 is presented in Table I. Among the six institutions course work is offered in all but one of the twenty-four conventional academic subdivisions of knowledge and training identified by the HEGIS taxonomy. The one exception is Theology.

Table I does not include the Vocational Technical Institute programs at Kansas State College of Pittsburg which generated 8,291 clock hours of work during Fall 1970 and issued 143 two-year certificates during fiscal year 1971 (July 1, 1970, to June 30, 1971). These data illustrate that institutional patterns are not

TABLE II
Degrees by HEGIS Discipline, FY 1971

Discipline	KU	KSU	WSU	KSTC	KSC	FHKSC	Total
0100 Agri. & Natural Res.		339				42	381
0200 Arch. & Environ. Des.	51	110					161
0300 Area Studies	52		2				54
0400 Bio. Sciences	153	162	29	71	51	23	489
0500 Bus. & Mgmt.	288	232	349	295	186	267	1,617
0600 Communications	231	79	16				326
0700 Comp. & Info. Sciences	4	36		31	27		98
0800 Education	619	517	494	795	535	433	3,393
0900 Engineering	336	234	117		*209		896
1000 Fine & Applied Arts	185	40	54	75	29	84	467
1100 Foreign Languages	148	41	28	37	8	14	276
1200 Health Professions	98	105	38		1	43	285
1300 Home Economics		250		30	10	19	309
1400 Law	85						85
1500 Letters	335	85	109	132	61	78	800
1600 Library Science				92			92
1700 Mathematics	65	54	43	65	40	37	304
1800 Military Science							
1900 Physical Science	149	86	41	34	42	19	371
2000 Psychology	209	67	59	92	37	44	508
2100 Public Affairs & Services	115		24		64		203
2200 Social Science	511	246	202	156	136	83	1,334
2300 Theology							
4900 Interdisciplinary Studies	41	85				32	158
TOTALS	3,675	2,768	1,605	1,905	1,436	1,218	12,607
PERCENT TOTAL	29%	22%	13%	15%	11%	10%	

* School of Technology

the same during the summer as during the regular academic year. If, as shown in the final line of Table I, fall and summer credit hours are added to those for spring 1971, it is possible to identify each institution's contribution to the regular (resident credit) instructional effort of the Regents' system for fiscal year 1971.

Degrees Granted

This study also collected data concerning degrees granted by the Regent institutions during fiscal year 1971. A summary of all degrees granted at each institution, with the exception of certificates awarded from the Vocational Institute at Kansas State College of Pittsburg, is presented by HEGIS discipline in Table II.

The purpose of this study was not to evaluate the quality or effectiveness of programs, and variables attempting to measure such attributes were not introduced. The data concerning credit hours and degrees, however, make possible the development of a ratio of degrees to credit hours which, to a limited extent, is descriptive of the character of each institution. The ratio of degrees to credit hours for FY 1971 at each institution is shown in Table III.

TABLE III
Ratio of Degrees to Credit Hours

University of Kansas	awarded	.0071	degrees for each credit hour earned
Kansas State University	awarded	.0070	degrees for each credit hour earned
Wichita State University	awarded	.0056	degrees for each credit hour earned
K.S.T.C., Emporia	awarded	.0091	degrees for each credit hour earned
K.S.C. of Pittsburg	awarded	.0090	degrees for each credit hour earned
Fort Hays K.S.C.	awarded	.0077	degrees for each credit hour earned
AVERAGE		.0073	

Among other things, these ratios reflect student characteristics at each institution. The W.S.U. ratio, for example, probably is related to the large number of part-time students typical of an urban university.

Program Review

This study requested a description of program review procedures at the institutional and state levels. No single pattern exists for the adoption or the elimination of courses at the institutional level although all reported established practices for this purpose. On the State level, a revised procedure for approving new programs and academic units was adopted by the Board of Regents July 10, 1970. Under this procedure proposals for new schools, departments, and centers; for establishment of teaching programs in new disciplines; for extension of existing programs to higher degree levels; and for initiation of new subspecialties under existing degree names must be reviewed by the Council of Chief Academic Officers, the Council of Presidents, the Academic Committee of the Board and finally by the Board of Regents itself.

As a part of this study, institutions were also asked to list all new majors and degree programs added between July 1, 1968, and September 1970, and all majors and degree programs dropped during the same period.

The number of majors and programs added and dropped at each institution is shown in Table IV. A complete list is included in the full report.

TABLE IV

	Number of Majors and Degree Programs Added	Number of Majors and Degree Programs Deleted
K.U., Lawrence	22	13
K.S.U., Manhattan	12	15
W.S.U., Wichita	12	3
K.S.T.C., Emporia	1	0
K.S.C. of Pittsburg	7	2
F.H.K.S.C., Hays	2	2
	56	35

As might be expected during a period of expanding enrollments, the number of degree programs and majors added since 1968 exceeds the number dropped, although in several instances only minor changes, such as a change in name, were involved. It should be noted, however, that contrary to sometimes voiced public opinion, numerous programs have been deleted during this period and institutions have not merely continued to add new programs without careful examination of the continued need for the old.

V. EQUALIZING EDUCATIONAL OPPORTUNITY

Special programs among Regent institutions designed to equalize educational opportunity for disadvantaged students were researched as a part of the data gathering phase of master planning. Equalizing educational opportunity was defined as the offering of educational programs to unique or special groups that need some kind of special academic involvement to attain maximum educational development. Included within this definition were programs designed to offer academic aid to such groups as Blacks, Mexican-Americans, American Indians, international students, veterans, financially deprived, physically handicapped, and out-of-date professionals, along with the academically superior student.

A questionnaire mailed to each of the Regent institutions during the Fall 1971 semester asked the respondent to describe the population for whom such programs were designed, the nature and extent of such programs and practices, the objectives and rationale, their effectiveness, the enrollment, the admission eligibility and requirements, faculty training and special characteristics, use of physical facilities and the employment of State or Federal funds for the support of these special programs. Detailed information in response to each of these inquiries is contained in the complete report.

Special Programs Available

Table I provides a visual presentation of the existing equalized educational opportunity programs reported to be available to qualified students at the Regent

institutions. It portrays the number of programs available by institution and by general category. Most common among the types of programs offered are those which provide for (1) special counseling assistance, (2) non-credit remedial work, or (3) special assistance to international students. Most of the institutions also reported special programs were available for superior students and veterans. Several institutions observed that veterans could participate in several programs that were specifically designed for other groups.

TABLE I

The Number of Equalizing Educational Opportunity Programs in the Kansas System of Higher Education

Types of Program	Institutions						
	KU	KSU	WSU	KSTC	KSC	FHKSC	TOTAL
Spec. Counseling and Other Guidance Services	..	4	3	1	..	..	8
Spec. Remedial Courses for Non-Credit	1	3	3	..	1	1	9
Spec. Financial Aid Prog.	1	1	2	..	..	..	4
Spec. Prog. for the Psysically Handicapped	..	1	..	1	..	..	2
Spec. Foreign Student Prog.	3	2	1	1	1	1	9
Spec. Veterans Prog.	1	2	2	1	..	..	6
Spec. Teacher Training Prog.	..	..	2	..	..	..	2
Spec. Ethnic Group Prog.	1	..	..	..	..	..	1
Spec. Urban Supportive Prog.	..	..	1	..	..	..	1
Honors Programs	1	1	1	..	1	1	5
	8	14	15	4	3	3	47

Students Eligible

The State colleges and universities reported a total of forty-seven special programs available, each of which offers service to one or more unique or special group. The programs are not mutually exclusive, however, and certain groups can participate in several programs. Thus, a composite total of 123 groups is eligible to be served by the forty-seven programs. The population which the programs are designed to serve is displayed in Table II.

Two programs are available and designed to afford special assistance to the physically handicapped student. The oldest and most complete program of this kind is at Kansas State Teachers College where the program was initiated in 1954. Since that time numerous modifications have been made to the physical facilities on that campus at the institution's expense in order to accommodate the Physically Handicapped Program. Kansas State University initiated a program in 1967 designed to provide special counseling and advising services to handicapped students.

The major generalization warranted by these data is that the three universities are attempting through a variety of approaches to provide special assistance to the socially disadvantaged students. The voluminous nature of the data re-

TABLE II

Population Served by the Existing
Equalizing Educational Opportunity Programs

Population	Number of Programs KU	KSU	WSU	KSTC	KSC	FHKSC	TOTAL	%
Blacks	3	8	9	1	..	..	21	17%
American Indians	2	7	9	..	..	..	18	15%
Mexican Americans	2	8	9	..	..	..	19	15%
Foreign Students	4	4	4	2	2	2	18	15%
Veterans	2	4	6	1	..	..	13	11%
Financially Deprived	2	..	9	..	..	..	11	9%
Physically Handicapped	..	4	4	1	..	..	9	7%
Out-of-Date Profs.	..	..	..	..	..	..	..	..
Academically Superior	1	1	1	..	1	1	5	4%
All Students Needing Remedial Work	1	3	3	..	1	1	9	7%
							123	

ported would lead one to conclude that Kansas State University and Wichita State University were extremely involved in the development of such programs. Further, it appears from the initiation dates of these programs that such effort has grown markedly in extent and intensity in the past five years. In contrast, it appears that the three colleges offer only a limited number of programs designed for this purpose. The size of these institutions and the fact they are not located in urban areas probably accounts for much of the reason why more such programs are not available on these campuses.

VI. RESEARCH

Research activities at the six Regent institutions during the period 1966-1970 were surveyed as a part of the data gathering effort in the preparation of this report. The survey sought answers to questions pertaining to financial support and campus disbursement of research funds, institutional research strengths, organizational patterns, and anticipated future trends of research activities. Only condensed summary data are reported here.

For the purpose of this study the definition of research was limited to activities related to pure or applied research or data collection. Excluded from this definition were activities which are essentially service or training oriented, or which provided fellowships, stipends, or scholarships.

Financial Support for Research

The first two tables contained in this section display sources of financial support for research at the six Regent institutions from 1966 through 1970. Table I summarizes income derived from all sources, by institution. It is apparent that the University of Kansas and Kansas State University have attracted by far the greatest financial support for research during this period. Together they have

accounted for a combined total of 96 percent of the total dollars received for research at the Regent institutions.

TABLE I

Total Support, All Sources, for the Six State Colleges and Universities in Fiscal Years 1966-1970

Institution	Totals (in Thousands of Dollars) 1966	1967	1968	1969	1970
K.U.	6,512.7 (76%)	7,037.4 (76%)	6,844.5 (71%)	6,634.9 (68%)	7,334.5 (68%)
K.S.U.	1,721.6 (20%)	1,878.7 (20%)	2,455.5 (26%)	2,759.2 (28%)	3,045.0 (28%)
W.S.U.	170.5 (2%)	224.7 (2%)	163.5 (2%)	159.6 (2%)	186.6 (2%)
K.S.T.C.	114.0 (1%)	125.6 (1%)	122.8 (1%)	133.7 (1%)	126.8 (1%)
K.S.C.	14.3 ..	17.4 ..	19.3 ..	18.5 ..	35.5 ..
F.H.K.S.C.	14.4 ..	14.7 ..	14.8 ..	19.9 ..	18.3 ..
TOTAL	8,547.5	9,298.5	9,620.4	9,725.8	10,746.7

Research support was derived from three broad sources—Federal, State and Private. Table II records the allocation of funds from these sources, by institutions. In keeping with trends of the past two decades, Federal programs continued to comprise by far the largest source of research support. Only slight fluctuations occurred in the proportion of research funds received from these three major sources during the 1966-1970 period. The percentage of funds derived from State and Private sources each approximated 7.5 percent during this period with Federal sources maintaining a relatively stable contribution of 85 percent. It is common to find support for more than one of the Regents' institutions being funded by the same Federal agency.

It has been previously noted that State and Private agencies contributed a nearly equal amount of research support to Regent institutions. It is perhaps not surprising to discover that the State's financial contribution for research at Regent institutions is quantitatively and proportionately much smaller than resources attracted from Federal sources. What may be surprising, however, is the fact that State research monies only approximate that proportion attracted from Private sources and that the percentage from each is so small. Direct allocations to the University of Kansas and Kansas State University for general research comprised nearly 73 percent of the State's contribution. Private agency support, though from numerous sources, was generally modest in comparison to that received from Federal agencies. Unlike Federal agencies, however, it is uncommon to find grants being made by private agencies to more than one of the Regent institutions.

Academic Allocation of Research Funds

The disbursement of research dollars at each institution by academic category was traced during the 1966-1970 period. It is apparent from Table III that during this period access to financial support for research was most readily available in four concentrated areas: biological, physical and social sciences, and

TABLE II

Support for Research at the Six State Institutions
FY 1966-1970

Source	Institution	Fiscal Year 1966	1967	1968	1969	1970
Federal:	K.U.	$5,528,886	$6,293,241	$6,027,695	$5,845,281	$ 6,558,589
	K.S.U.	1,349,344	1,416,267	1,978,631	2,233,147	2,402,561
	W.S.U.	79,021	82,224	77,703	44,530	58,493
	K.S.T.C.	103,254	118,964	78,609	59,503	90,803
	K.S.C.	14,315	4,000	6,673	7,300	11,946
	F.H.K.S.C.	685	2,261	1,835	11,371	3,552
	TOTAL	$7,075,505	$7,916,957	$8,171,146	$8,201,132	$ 9,125,944
	%	82.8%	85.1%	84.9%	84.3%	84.9%
State:	K.U.	$ 469,757	$ 499,803	$ 503,539	$ 541,573	$ 577,890
	K.S.U.	93,985	158,747	187,296	139,679	170,138
	W.S.U.	15,637	23,837	23,145	46,305	50,969
	K.S.T.C.	4,000	4,000	16,062	44,934	6,258
	K.S.C.	--	13,431	12,595	11,066	23,426
	F.H.K.S.C.	--	--	--	--	--
	TOTAL	$ 583,379	$ 699,818	$ 742,637	$ 783,557	$ 828,681
	%	6.8%	7.5%	7.7%	8.0%	7.7%
Private:	K.U.	$ 514,017	$ 244,686	$ 313,264	$ 247,966	$ 198,024
	K.S.U.	278,228	303,191	289,625	386,400	472,273
	W.S.U.	75,812	118,544	62,620	68,709	77,019
	K.S.T.C.	6,715	2,514	28,164	29,271	29,761
	K.S.C.	--	--	--	163	163
	F.H.K.S.C.	13,690	12,372	12,928	8,552	14,787
	TOTAL	$ 888,462	$ 681,307	$ 706,601	$ 741,061	$ 792,027
	%	10.3%	7.3%	7.3%	7.6%	7.3%
GRAND TOTAL		$8,547,346	$9,298,082	$9,620,384	$9,725,750	$10,746,652

engineering. Table III summarizes the total amount of support available to the various academic areas by HEGIS discipline. Brevity precludes a display of these data by institution.

Organization, Strengths and Future Trends

Institutions reported that a single individual, usually with the assistance of a research advisory committee, was responsible for the coordination and support of research activities on their campuses. These persons were asked to project research trends they envision likely to emerge in the 70's. To the extent that the responses represent the opinions of those closest to research in higher education in Kansas, the information is valid. Most respondents followed a central theme in predicting trends.

It is the opinion of most research administrators that Federal support for research will level off, if not decrease, in the future. Further, demands for public

TABLE III

Total Distribution of Research Income, for All Institutions, by HEGIS Program Category Level, in Fiscal Years 1966-1970

Category	Total Funds (in Thousands of Dollars) 1966	1967	1968	1969	1970
Agricultural and Natural Resources	543.0 (6%)	551.5 (6%)	645.2 (7%)	598.0 (6%)	716.6 (7%)
Architecture and Environmental Design	12.3 ..	8.9 ..	.. ..	.7 ..	8.2 ..
Area Studies	.. ..	13.4 ..	8.5 ..	9.7 ..	21.1 ..
Biological Sciences	1,682.6 (20%)	1,607.5 (17%)	1,600.9 (17%)	1,946.5 (20%)	1,943.8 (18%)
Business and Mgmt.	.2 ..	2.0 ..	6.1 ..	17.3 ..	37.0 ..
Communications	4.3 ..	.. ..	.. ..	27.5 ..	3.5 ..
Computer Info. Sci.	38.9 (1%)	39.9 ..	140.0 (1%)	103.5 (1%)	561.5 (5%)
Education	329.6 (4%)	72.4 (1%)	94.3 (1%)	126.2 (1%)	274.9 (3%)
Engineering	1,562.4 (18%)	1,572.4 (17%)	1,511.4 (16%)	1,725.4 (18%)	1,761.8 (16%)
Fine and Applied Arts	1.0 ..	1.5 ..	7.5 ..	1.9 ..	.7 ..
Foreign Languages	.2 ..	.2 ..	.. ..	.. ..	.. ..
Health Professions	113.3 (1%)	101.1 (1%)	154.0 (2%)	249.4 (3%)	264.4 (2%)
Home Economics	4.0 ..	18.6 ..	7.3 ..	11.9 ..	11.0 ..
Law	3.8 ..	15.0 ..	.. ..	.. ..	5.0 ..
Letters	64.2 (1%)	22.1 ..	11.5 ..	14.5 ..	27.5 ..
Library Science	.. ..	100.0 (1%)	.. ..	107.8 (1%)	.. ..
Mathematics	63.6 (1%)	128.2 (1%)	201.1 (2%)	35.7 ..	161.4 (2%)
Military Sciences	.. ..	.. ..	.. ..	.. ..	.. ..
Physical Sciences	1,827.2 (21%)	2,218.6 (24%)	1,986.5 (21%)	1,806.9 (19%)	1,925.8 (18%)
Psychology	329.5 (4%)	269.3 (3%)	261.8 (3%)	247.0 (3%)	256.9 (2%)
Public Affairs Services	.. ..	.. ..	.. ..	7.4 ..	.. ..
Social Sciences	1,343.9 (16%)	1,882.8 (20%)	2,362.8 (25%)	2,155.1 (22%)	2,113.8 (20%)
Theology	.. ..	.. ..	.. ..	.. ..	.. ..
Interdisciplinary	573.0 (7%)	621.4 (7%)	568.7 (6%)	480.2 (5%)	593.1 (6%)
Miscellaneous	50.5 (1%)	51.3 (1%)	52.8 (1%)	53.0 (1%)	58.5 (1%)
TOTAL	8,547.5 ..	9,298.1 ..	9,620.4 ..	9,725.6 ..	10,746.5 ..

funds from other sectors coupled with recent legislation which restricts and taxes the scope and income of private foundations make it also doubtful in the minds of these administrators that any significant increase for research will be forthcoming from either State or Private sources.

This is not to say that research income will diminish significantly from these sources or for all purposes. The respondents predicted continued or increased support for research projects with social applications. Studies concerned with the environment, health, the social and behavorial sciences, and urban affairs—sometimes referred to as the peace, poverty, pollution and population issues—all should find favor with supporting agencies. Accompanying this theme appears to be a move toward increased acceptance of projects with broad rather than narrow applications.

VII. EXTENSION, PUBLIC SERVICE AND CONTINUING EDUCATION

The Directors of Continuing Education were asked by the Council of Chief Academic Officers to analyze the current status of continuing education at the Regent institutions and to provide profile data relative to this facet of higher education. Data were gathered for this effort by questionnaires designed for this purpose and by personal interviews supplemented in part by data available from annual reports available through the Office of Statewide Academic Extension.

Organization

All academic extension activities, both credit and non-credit, conducted off campus by the respective Divisions of Continuing Education at each of the Regent institutions are required to be approved by the Office of Statewide Academic Extension. The Statewide Office, located in Lawrence, Kansas, has been charged by the Board of Regents, under the supervision of the Extension Commission, with this responsibility. Each of the Regents' institutions maintains a Division or Department of Continuing Education or Office of Field Service headed by a director who reports to or through the Academic Vice President on his own campus.

Program Activities

The heterogeneity of educational experiences available through the Regent institutions and the tremendous growth of services offered by the Divisions of Continuing Education in recent years are reflected, in part, by a five-year trend analysis shown in Table I. This table provides a comparative profile of the total credit and non-credit extension activities offered by Regent institutions in 1966-67 and again five years later in 1970-71. The programs at Wichita State University are not included since it conducted no off-campus extension classes during this period.

A review of Table I reveals that graduate credit classes have shown a much greater increase than either undergraduate credit classes, non-credit classes or non-credit conferences during the five-year period. There was a 217% increase in the number of graduate credit classes offered and a 342% increase in graduate

TABLE 1

Credit and Non-Credit Off-Campus Activities conducted by the Regent Institutions During 1966-67 and 1970-71

Category	1966-67	1970-71	% Change
Undergraduate Credit Classes	206	310	+ 50%
Graduate Credit Classes	75	238	+ 217%
Total Credit Classes	281	548	+ 95%
Undergraduate Registrations	3,756	5,395	+ 44%
Graduate Registrations	1,445	6,384	+ 342%
Total Credit Class Registrations	5,201	11,779	+ 126%
Non-credit Classes	275	570	+ 107%
Non-credit Class Registrations	10,118	15,651	+ 55%
Total Credit/Non-credit Classes	556	1,118	+ 101%
Total Credit/Non-credit Registrations	15,319	27,430	+ 79%
Non-credit Conferences	314	417	+ 33%
Non-credit Conference Registrations	33,038	58,747	+ 78%
Total Class/Conference Registrations	48,357	86,177	+ 78%

class registrations. The total number of credit classes offered at both the graduate and undergraduate level increased by 95% during this period while total registrations at all levels increased by 126%.

A complete listing of all continuing education activities is impossible in this report, but it is significant to report that there was a total of 41,319 continuing education activities provided during 1970-71 with approximately 183,149 participants. Of this number the more traditional continuing education activities of credit classes, non-credit classes and conferences or institutes accounted for a total of 104,374 registrations. Career Day Programs, Work Incentive Programs, Audio-Visual Center activities, and Parents' Orientation Programs are typical of the many other activities coordinated through the continuing education offices.

A review of continuing education activities by subject orientation reveals two patterns of course work. The off-campus offerings of the three colleges were almost entirely (approximately 95%) in the area of teacher education. By contrast, the courses offered by the three universities were weighted primarily toward the behavorial sciences and humanities with business, education and engineering receiving secondary emphasis.

Participants

Profiles of the "typical" continuing education student enrolled for 1.) credit and 2.) non-credit offerings have been obtained through systematic inventory of the enrollees and provide a cursory comparison of participants. Unique characteristics distinguish both groups.

Profile #1. The typical part-time student for most traditional class or conference offerings *for credit* is characterized as: middle class; with professional or technical work experience; four or five years of college; approximately 35 years of age; travels about 25 miles round trip to attend the class; lists his main reason for enrolling as upgrading his professional competencies or recertification to meet given standards.

Profile #2. The typical part-time participant for most *non-credit* continuing education offerings, especially those involving Federal grant monies is characterized as: lower middle class or of lower socio-economic classification; generally a laborer, service worker or homemaker; usually has received some high school education or a high school diploma; approximately 27 years of age; travels about five miles round trip to attend the activity; lists his major reason for enrollment as career development or self-improvement.

Financing

The financing of the continuing education divisions is consistent with Regents' policy that extension instruction be self-supporting with the provision that administration and overhead expenses may be paid by State funds appropriated to the institutions. On the average, the continuing education units at the six Regent institutions were 67% self-supporting. The degree of self-support ranged from 46% to 88%. Individual programs within each continuing education unit ranged from being totally self-supporting to being totally supported from State appropriations.

The operating budget for each of the six units ranged from $78,948 to $1,991,617. Overall $1,062,259 came from public funds appropriated to the institutions, $1,596,430 came from restricted fee income, $560,162 from grants and contracts and $3,000 from a local mill levy for a total of $3,221,849. It appears that each of the six divisions is paying for a portion of its general administrative overhead costs from sources other than State appropriations.

The great diversity of types of programs under the aegis of continuing education makes a meaningful analysis of financing, participation, and activities extremely difficult without breaking out each program or program activity individually. Such an analysis is beyond the scope of this summary.

VIII. PHYSICAL FACILITIES

The gathering of data necessary for long-range planning of physical facilities has been initiated by a committee comprised of campus representatives from each of the six Regent institutions. This group has been formed for the express purpose of developing a comprehensive master plan for physical facilities designed to accommodate the academic programs of each of the Regent institutions.

To this end, the Long-Range Physical Planning Committee has employed consultants to assist it in two major tasks. First, in assessing the capabilities and limitations of existing space on each campus, and second, in developing a comprehensive planning process for determining the future physical needs of the campuses.

Evaluation of Existing Space

Each institution was requested to submit a list of buildings on its campus that it felt should be investigated and appraised by a competent and impartial authority in order to determine their true conditions. Excluded from these lists were buildings which were obviously in good condition and those which were obviously obsolete.

The investigation was conducted on each campus by a single, impartial, registered architect who was selected for this purpose on the basis of his knowledge of building structures and compliance codes gained from years of professional experience in this field.

The buildings were evaluated on the basis of four criteria—exterior condition, interior condition, mechanical systems condition, and conformance to safety requirements of the building code. On the basis of its total score on these components, each building was classified into one of three main categories: (1) Satisfactory, (2) Needs Remodeling (Major-Minor), and (3) Obsolete.

Table I summarizes the condition of all buildings by institution. This table

TABLE I

Physical Condition of Buildings by Institutions, 1971

Number of Buildings:		Gross Area, Square Feet	Percent of Total	Combined Total %
University of Kansas				
	INSPECTED AND FOUND TO BE:			
10	Satisfactory	586,176	12	68
11	Needs Minor Remodeling	356,758	7	7
11	Needs Major Remodeling	885,213	18	18
15	Obsolete	185,898	4	7
	Subtotal	2,014,045	41	
	NOT INSPECTED BUT DETERMINED TO BE:			
87	Satisfactory	2,818,673	56	
40	Obsolete	159,873	3	
	Subtotal	2,978,546	59	
174	TOTAL	4,992,591		100
Kansas State University				
	INSPECTED AND FOUND TO BE:			
1	Satisfactory	109,459	2	71
4	Needs Minor Remodeling	232,788	5	5
6	Needs Major Remodeling	233,018	5	5
17	Obsolete	643,759	15	19
	Subtotal	1,219,024	27	
	NOT INSPECTED BUT DETERMINED TO BE:			
55	Satisfactory	3,072,555	69	
21	Obsolete	158,607	4	
	Subtotal	3,231,162	73	
104	TOTAL	4,450,186		100
Wichita State University				
	INSPECTED AND FOUND TO BE:			
7	Satisfactory	66,529	5	66
6	Needs Minor Remodeling	154,599	12	12
2	Needs Major Remodeling	144,188	11	11
9	Obsolete	102,062	8	11
	Subtotal	467,378	36	

Physical Condition of Buildings by Institution, 1971 concluded

Number of Buildings:		Gross Area, Square Feet	Percent of Total	Combined Total %
	NOT INSPECTED BUT DETERMINED TO BE:			
17	Satisfactory	800,931	61	
19	Obsolete	33,604	3	
	Subtotal	834,535	64	
60	TOTAL	1,301,913		100
Kansas State Teachers College, Emporia				
	INSPECTED AND FOUND TO BE:			
1	Satisfactory	62,301	8	60
2	Needs Minor Remodeling	154,631	21	21
1	Needs Major Remodeling	32,372	4	4
2	Obsolete	38,382	5	15
	Subtotal	287,686	38	
	NOT INSPECTED BUT DETERMINED TO BE:			
7	Satisfactory	384,585	52	
8	Obsolete	73,342	10	
	Subtotal	457,927	62	
21	TOTAL	745,613		100
Kansas State College of Pittsburg				
	INSPECTED AND FOUND TO BE:			
1	Satisfactory	15,351	1	67
3	Needs Minor Remodeling	155,016	11	11
4	Needs Major Remodeling	262,416	19	19
0	Obsolete			3
	Subtotal	432,783	31	
	NOT INSPECTED BUT DETERMINED TO BE:			
24	Satisfactory	900,314	66	
2	Obsolete	38,579	3	
	Subtotal	938,893	69	
34	TOTAL	1,371,676		100
Fort Hays Kansas State College				
	INSPECTED AND FOUND TO BE:			
1	Satisfactory	44,909	4	80
2	Needs Minor Remodeling	105,160	9	9
0	Needs Major Remodeling			
4	Obsolete	102,953	9	11
	Subtotal	253,022	22	
	NOT INSPECTED BUT DETERMINED TO BE:			
33	Satisfactory	901,580	76	
5	Obsolete	19,726	2	
	Subtotal	921,306	78	
45	TOTAL	1,174,328		100

includes both those buildings that were inspected and those that were not inspected, but were determined to be satisfactory or obsolete by the institution on the basis of their obvious condition. Complete data have been published in the report, *Physical Facilities Investigation*, and are available in the Board of Regents office.

Planning Process

In order to provide consultative assistance in the development of a coordinated planning process for determining future space needs, the Long-Range Physical Planning Committee employed a nationally recognized architectural firm which specializes in long-range campus planning techniques.

The first task of this group has been to gather and synthesize data provided from the academic areas in order to develop a uniform process at each institution for determining future space needs. The process developed during this phase is essentially a framework for physical development planning.

Within this process, several procedures have been identified which when established will provide quantitative and qualitative information for space use and resource allocation on an annual basis. To establish a uniform process at each institution, all procedures have been documented and organized in a Physical Development Planning Manual. Copies of the manual, now in the hands of campus personnel, will be used in the future to develop comprehensive long-range plans for the logical and orderly growth of long-range physical plans.

Space precludes a detailed review of the Manual. However, it consists essentially of three sections. They are:

(1) An overview of the planning process, including an explanation of the various functions of planning, the planning responsibilities and the procedures for putting the process into effect.
(2) A description of physical development planning, including outlines and procedures for accomplishing physical development plans.
(3) Information needed for planning, including the organizations and policies of the State, Regents and institutions, institutional programming information, inventories and guidelines, campus mapping procedures, and guidelines for building and space inventories and evaluation.

The Committee is currently involved in applying the process outlined in the Manual to campus programming, planning, and staging steps which, when completed, will comprise the first physical development plans for each institution. Each of these plans will be reviewed, refined and updated annually.

IX. STUDENT LIFE

Almost without exception, any decision made on a university or college campus will have some impact on student life. In order to obtain an appraisal of policies and practices relating to student life at the Regent institutions, the Chief Student Personnel Officers of the Regent institutions were requested to review and summarize currently existing student service activities and identify emerging issues.

Student personnel services are essentially those which carry out the following functions: (1) provide counseling for students, (2) encourage learning through organized extracurricular activities, (3) help stimulate recreational activities which are in harmony with the goals of the college, (4) provide service to students through such specific channels as financial aid, health, housing, and student union, (5) help students develop an effective voice in campus affairs, (6) help the campus community to gain an increased understanding of student thinking and behavior. Properly conducted, the activities of student personnel officers may contribute much to the tone and quality of the campus environment.

Organization and Administration

All of the Regent institutions have divisions or departments of student personnel services which direct their efforts toward fulfillment of the functions outlined above. Each institution has a unique administrative arrangement for carrying out these responsibilities, but student personnel officers at each school agree this uniqueness is desirable in light of the special mission, objectives and student enrollment mix at each of the institutions. Common to student personnel services at all institutions, however, is the responsibility for a close working relationship with student government and student organizations.

Participation in Policy-Making

The student voice in policy making at Regent institutions appears to be substantial and is apparently increasing. The actual number of decision-making groups on which students hold membership varies greatly among institutions because of the unique organizational structure of each. The University of Kansas has a written policy which provides that student representation must constitute at least 20 percent of the membership of any policy-making group. Other schools, while indicating no such generalized written policy, indicated student representation on decision-making committees is common at their institutions as well and that the percentage of students serving on a committee may even surpass 20 percent depending on the type of committee.

As a general policy, institutions state that any segment or group which will be affected by a decision will be represented sometime during the decision-making process. Further, institutions indicate that it is common for students to hold voting memberships on policy-making groups in both academic and administrative areas. Exceptions are committees which deal specifically with faculty affairs; i.e., tenure and welfare committees. The reverse practice does not appear to be general policy—committees established by student governing bodies do not generally provide voting membership for faculty or administrators.

Changes occurring in the past several years have found the chief student personnel officers more centrally involved in the life of the campus. They are, of course, interested in all policy decisions that have a direct bearing on student life. They all have direct access to their President or Chancellor, and have established both formal and informal communication devices for relating to faculty governing and policy groups. While personal relationships with academic deans are considered good on all campuses, the need for more formal communication

is recognized. Student personnel officers feel that one index of their effectiveness is the type and level of information they possess, an argument for full participation in campus affairs.

Student Services

Many specific services are available to complement the academic pursuits of students and aid them in putting their talents to the best possible use. Among those identified as common to all of the Regent institutions were admissions, health services, veterans and dependents services, housing assistance, student unions, food services, bookstores, financial aids, part-time employment and job placement.

Other services available at most of the Regent institutions and which may be partially or totally classified as student services include international student program, student orientation assistance, campus security, intramural recreation, fraternities and sororities, counseling and guidance, campus ministries, day care centers, testing services, minority group programs, and co-curricular programs involving the training of future student personnel staff members.

Student Rights

Policies and practices in the area of student rights have developed rapidly in the past decade. A minority of students distrust the motives of their institutions and no doubt this has been part of the reason for the development of such guidelines. Student expectations and institutional policy are outlined here in three areas:

Classroom Freedoms—Students need (1) freedom of expression without fear of reprisal, (2) protection against improper academic evaluation, and (3) protection against improper disclosure of information about their views, beliefs, political associations, etc. Institutions typically (1) allow reasoned exceptions to views, but insist that students be held responsible for learning the content of any course of study for which they are enrolled, (2) provide mechanisms for redress of grievances registered by students who feel they have been evaluated unfairly, and (3) provide subjective information about a student only with the knowledge and consent of the student.

Student Records—Students are concerned about (1) the content of records of academic progress, (2) access to records, (3) and periodic elimination of records. Institutions typically (1) maintain separate academic and disciplinary records—except where dismissal situations involve academic progress, (2) make records available only to authorized persons on the campus, (3) periodically destroy non-current disciplinary records.

Student Behavior—Students desire (1) freedom of association, (2) freedom of inquiry and expression, (3) participation in some form of college or university governance, (4) freedom of student press and radio, (5) procedural due process when accused of wrong, (6) the same prerogatives off campus afforded other citizens. Institutions typically (1) impose limited criteria for the recognition of student groups, (2) provide freedom to examine and discuss topics of interest to students, to express opinions publicly and to invite persons of their choosing to the campus (provided, no illegal or disruptive activities are involved, the occasion is conducted in a manner appropriate to the academic community, and a clear under-

standing exists that views of such persons do not imply institutional approval or endorsement), (3) encourage students to participate in the organized life of the campus, (4) apply press and radio censorship only in situations stated as principle and not associated with specific stories, (5) provide a system of due process delineating a student's right when his behavior is in question, (6) refrain from interfering with off-campus violations of law, except where the institution's interests as an academic community are distinctly involved.

Emerging Issues

A good deal of attention and discussion is currently being devoted to the matter of changing "life styles." The Student Personnel Officers identified several issues which they foresee as emerging at the Regent institutions during the next few years and which portray certain trends in student life styles. They are presented here in outline form as typical of requests being received from students by the Student Personnel Officers. No endorsement of the requests is implied.

I. Classroom Related Issues
   a. Fewer required courses at the freshman & sophomore levels
   b. Less lecturing and more dicsussions
   c. More credit-no credit options
   d. More opportunity for individually planned degree programs
   e. Evaluations by instructors rather than grades
   f. Courses in university administration
   g. Courses in drug abuse and human sexuality
   h. Credit for service to university and community
   i. More internship opportunities
   j. Course evaluations by students

II. Non-Classroom Related Issues
   a. Complete control of student activity fee
   b. Changes in governance of the school
      1. Vote on tenure, promotion and hiring
      2. Enlarged role in curriculum planning
      3. Larger role in decisions of Regents and Legislature
      4. Larger role in policy making at the University level
   c. Changes in housing
      1. More apartments
      2. Regulations formed by consent of occupants
      3. More flexible food plans
      4. Protection from landlords
   d. Changes in financial aid
      1. Support to all who need it
      2. Budget planning & work opportunities
      3. Support for those who want to earn own way even though parents can afford to pay
   e. Changes in student organizations
      1. Advisor to be participant rather than supervisor
      2. Responsibility and accountability to rest with the organization
      3. School to be register of student organizations only
   f. Changes in school's role in societal issues
      1. More attention by school to its own racism, sexism and pollution
      2. Emphasis on human relations, especially minorities
      3. Legal aid in student off-campus behavior incidents

Perhaps the major generalization that is warranted by these data is that most students expect and understand the need for government in a college community, but they want to be involved in a major way in that decision-making process. In recent years there has been a great increase of participation in policy-making bodies, both by students and staff. This normally improves the communication process, but requires great quantities of time and energy. The number of people involved in student life activities is and appears likely to remain extensive.

X. LIBRARIES

The librarians at the six Regent institutions were asked to provide comparable data depicting collections, support and utilization of the libraries at the six Regent institutions. Data were obtained from records maintained by each of the six libraries or, in a few cases, from estimates based on samples taken during the year. In order to make the data more meaningful, comparisons with standards adopted by other states, or that are generally accepted nationally, have been included.

Collections

The library collections for the Regent institutions for 1970-71 compare favorably for the most part with the U.S. Office of Education averages for college libraries for 1968-69. For public universities of over 10,000, the U.S.O.E. reported an average of 55 volumes per student compared to 98 at the University of Kansas, 44.7 at Kansas State University and 37.5 at Wichita State University. The U.S. Office of Education average for four-year institutions with graduate students and enrollments between 5,000 and 9,999 was 31 volumes per student compared to 40.8 at K.S.T.C., 40.5 at Pittsburg and 42.9 at Fort Hays Kansas State College. The total inventory of library collections, by institution, is shown in Table I. Excluded from this count are collections of maps, records, manuscripts, photographs, tapes, slides and art objects.

TABLE I

Statistics of Collections

College or University	Books	Documents	Microfilm (Reels)	Other Microforms	Periodical Titles
K.U.	1,454,405	299,176	27,994	304,426	17,499
K.S.U.	600,081	200,000	17,204	355,240	11,000
W.S.U.	363,316	342,987	8,697	146,272	3,574
K.S.T.C.	266,049	169,650	8,850	127,027	2,757
K.S.C.P.	217,828	114,052	9,201	5,225	1,917
F.H.K.S.C.	225,501	415,483	4,324	18,013	2,530

The collections do not compare as well when the Clapp-Jordan/Washington State formula is applied. This formula takes into consideration the need for additional library materials for graduate programs at the masters and doctorate levels and is generally regarded by librarians as providing a more valid projection of needs than a rigid average number of volumes per student. Under this formula percentages represent the present level of collections compared to the recom-

mended size. Figures for the Regent institutions, listed from high to low, are 68.0%—K.S.T.C., Emporia; 67.1%—Wichita State University; 61.4%—Fort Hays Kansas State College; 56.3%—University of Kansas; 53.3%—Kansas State College of Pittsburg; and 45.6%—Kansas State University.

The growth of collections at the libraries has apparently leveled off and in some cases dropped considerably during the past five years. This is demonstrated by the figures in Table II. To a large degree, this reflects the impact of rapidly increasing book prices during a time when library budgets have not increased correspondingly.

TABLE II

Measures of Collections Growth

	1966-67	1967-68	1968-69	1969-70	1970-71
K.U.					
Books	62,988	70,341	84,501	64,293	64,679
Other (microforms,, documents, etc.)	10,188	10,526	13,063	159,861	204,688
K.S.U.					
Books	43,403	44,037	32,008	33,550	39,053
Other	8,024	8,024	13,945	10,500	14,581
W.S.U.					
Books	18,329	21,131	19,726	24,795	22,427
Other	24,045	38,580	40,017	45,850	52,602
K.S.T.C.					
Books	12,747	16,171	11,147	15,866	6,029
Other	15,617	67,785	33,651	36,682	28,453
K.S.C.P.					
Books	8,576	12,247	12,326	10,520	8,846
Other	7,418	6,834	12,511	4,181	8,792
F.H.K.S.C.					
Books	4,766	10,253	10,812	10,026	9,801
Other	24,624	38,008	(–4,872)	23,747	34,734

Utilization

As a part of this study and for the first time, the librarians have submitted a subjective evaluation of the adequacy of their present collections to support the current levels of academic programs offered at their institutions. Volume precludes the inclusion of the data in this summary; however, this type of evaluation appears to hold promise for a meaningful appraisal of interrelationships of library holdings with institutional programs in the future. The standard HEGIS program classification structure was used for this reporting effort. These categories posed some problems due to the fact they did not best fit the standard library collection designations, neverthless, a reasonable amount of accuracy was possible. Consensus appraisal reveals a generally favorable correlation between the adequacy of the present level of collections with that needed to support the present academic program. Most of the collections, however, appear weak in books published before 1965 and many of the periodical collections appear to have deficiencies in the sciences and new titles.

A statistical inventory of library capacities at each of the institutions is included in Table III. These data are self-explanatory and are included here in order to provide the reader with a comparative perspective of maximums and limitations imposed by the present facilities. A comparison of these figures with those shown in Table I provides some measure of the adequacy of present facilities to house current collections at each of the institutions.

TABLE III

Inventory of Building Assets

	Volume Capacity	Book Storage (Linear Ft.)	Reader Stations (No. of Seats)	Work Stations (No. of Work Spaces)
K.U., Lawrence	1,700,000	240,000	2,424	180
K.S.U., Manhattan	1,000,000	108,576	2,500	75
W.S.U., Wichita	536,150	77,511	1,201	84
K.S.T.C., Emporia	574,720	69,700	928	64
K.S.C. of Pittsburg	197,700	27,677	300	32
F.H.K.S.C., Hays	300,895	50,526	1,022	48

Support

The final table included in this summary portrays financial support and growth for the libraries by institution during the 1966-1970 period. The figures shown in Table IV do not include federal or gift funds, but include all expenditures for books, periodicals, bindings, personnel, equipment and other materials or maintenance.

TABLE IV

Financial Support and Growth

	1966/67	1967/68	1968/69	1969/70	1970/71
K.U., Lawrence	$1,296,273	$1,503,819	$1,702,190	$1,817,368	$2,108,942
K.S.U., Manhattan		869,120	901,757	1,020,034	1,045,968
W.S.U., Wichita	525,990	591,627	642,939	740,269	822,981
K.S.T.C., Emporia	426,292	509,888	504,659	492,324	528,527
K.S.C. of Pittsburg	277,154	271,963	290,786	296,748	303,754
F.H.K.S.C., Hays	270,595	286,731	329,925	364,731	390,579

Certain library needs are shared concerns of all institutions. Maintaining current collections while making provision for increased acquisitions is viewed as vital, but difficult, at a time when per unit costs of library materials continues to rise. Improved ratios of professional and clerical staff, and expanded service activities through incorporation of automated procedures are other areas of common concern to the librarians. Greater interlibrary cooperation through improved cooperative loan and borrowing services, and methods whereby older and less frequently used acquisitions can be centrally stored and cataloged are being investigated.